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(54) SYSTEM, METHOD, AND NON-TRANSITORY COMPUTER-READABLE STORAGE MEDIA FOR AUTOMATICALLY CHECKING IN A CUSTOMER

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CPC ***G06Q 30/0635*** (2013.01); ***G06Q 30/0613*** (2013.01); ***G06Q 30/0641*** (2013.01);
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CPC G06Q 30/0613; G06Q 30/0635; G06Q 30/0641; G06Q 20/32; H04L 63/18; H04W 4/046; H04W 8/22
See application file for complete search history.

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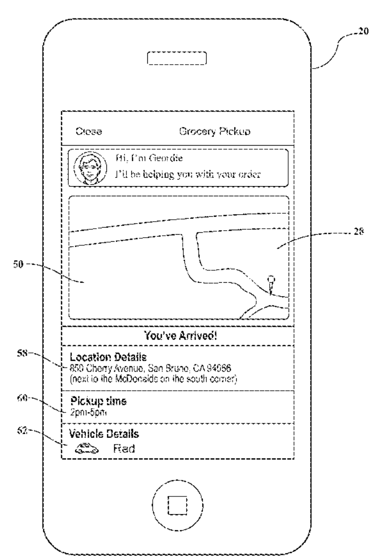
(57) **ABSTRACT**

A system for automatically checking-in a customer includes a database and a server computer including a processor coupled to a memory device. The processor is programmed to install a customer application on a customer mobile computing device, install an associate application on an associate mobile computing device, receive a signal from the customer device indicating that the customer device has automatically recognized a wireless hotspot about the store and including a unique customer identification associated with the customer device, retrieve a data record from the database including a customer profile associated with the unique customer identification, determine if the retrieved data record includes a customer order, and if the retrieved data record includes a customer order, then automatically check-in the customer and transmit a signal to the associate device including an indication that the customer is checked-in and available to pick-up the customer order.

16 Claims, 20 Drawing Sheets



(51) **Int. Cl.**

H04L 29/08	(2006.01)
H04W 4/021	(2018.01)
H04W 4/60	(2018.01)
H04W 4/029	(2018.01)
H04W 4/42	(2018.01)

(52) **U.S. Cl.**

CPC ***H04L 67/306*** (2013.01); ***H04W 4/02*** (2013.01); ***H04W 4/021*** (2013.01); ***H04W 4/029*** (2018.02); ***H04W 4/42*** (2018.02); ***H04W 4/60*** (2018.02)

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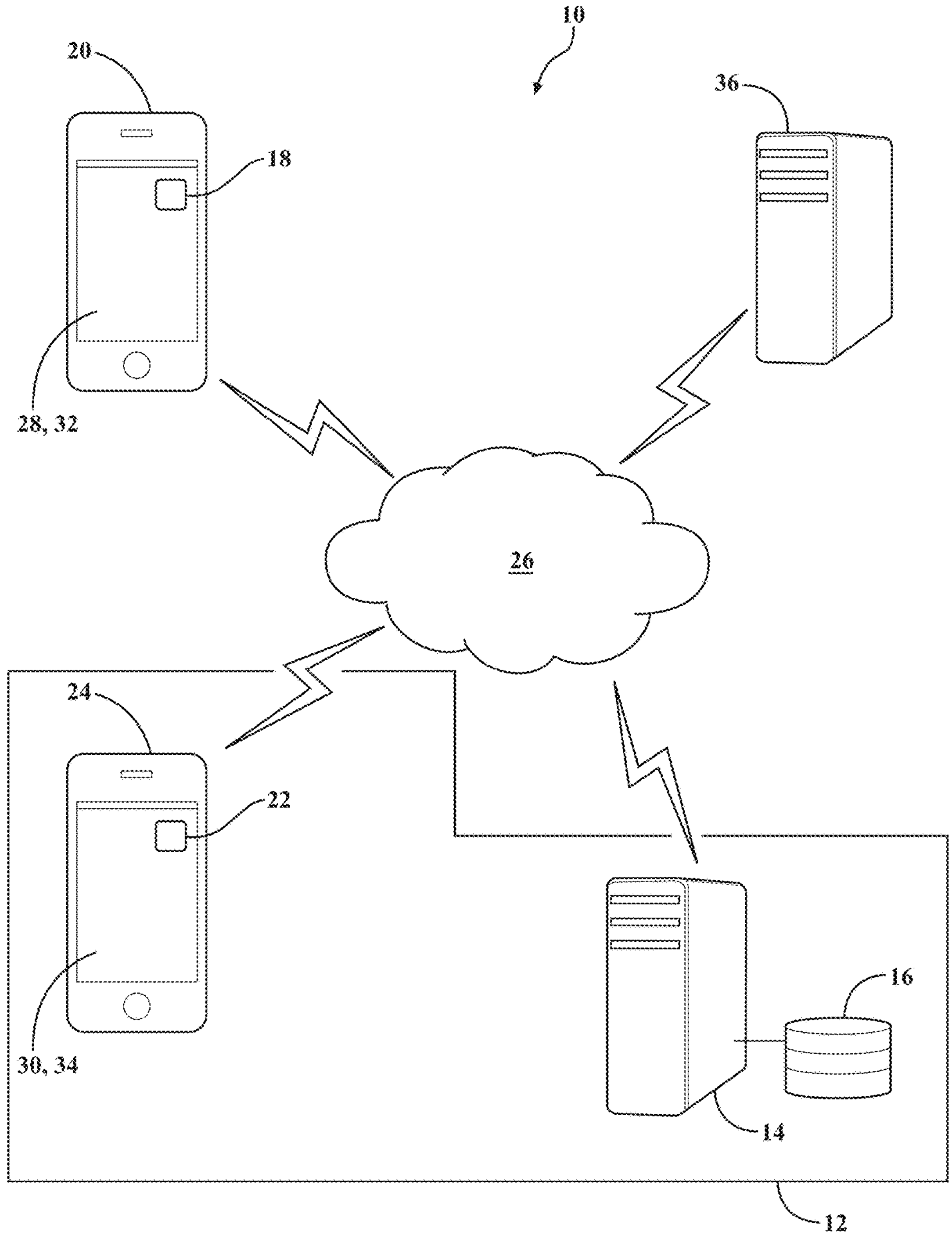

FIG. 1

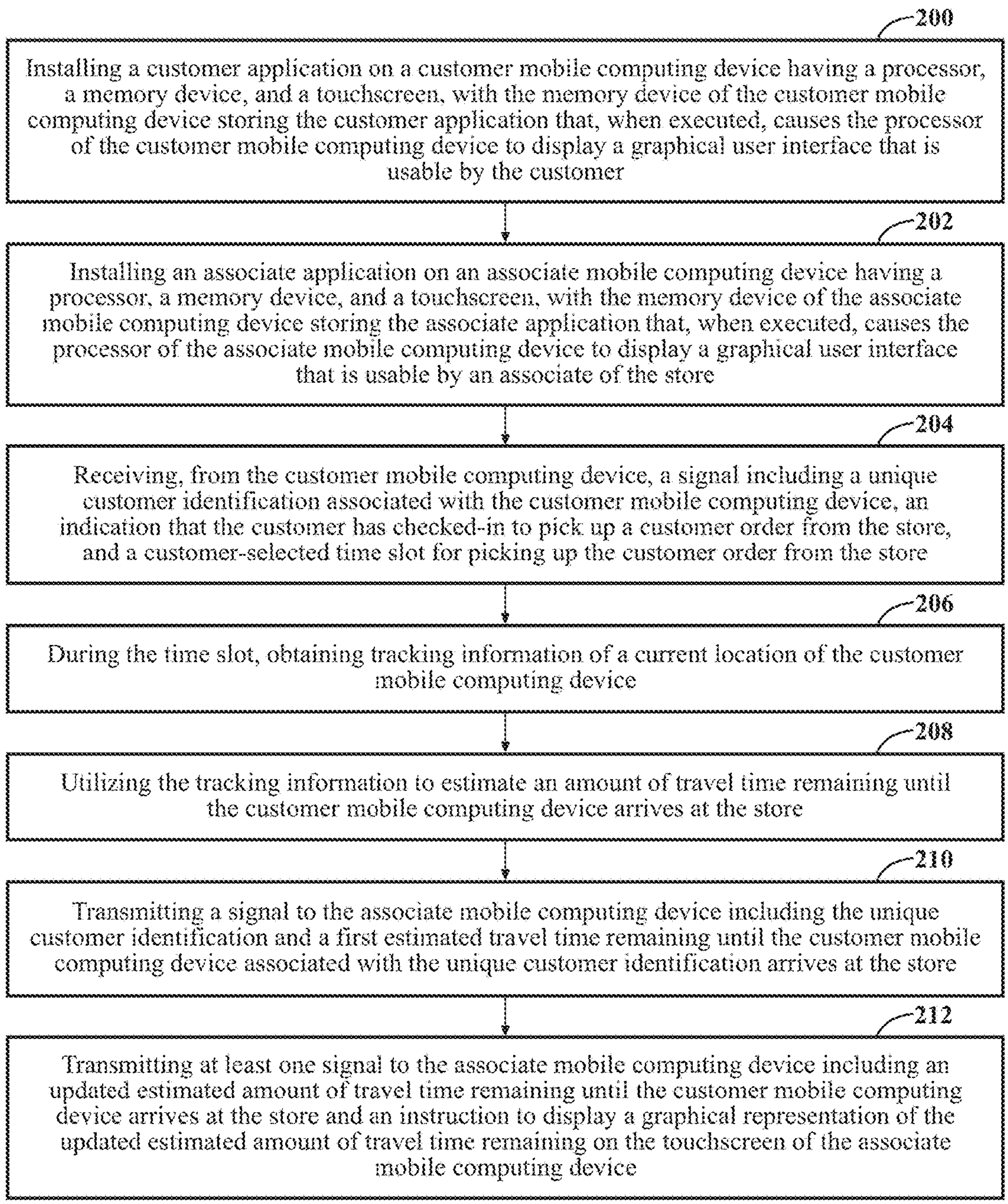
200
Installing a customer application on a customer mobile computing device having a processor, a memory device, and a touchscreen, with the memory device of the customer mobile computing device storing the customer application that, when executed, causes the processor of the customer mobile computing device to display a graphical user interface that is usable by the customer
202
Installing an associate application on an associate mobile computing device having a processor, a memory device, and a touchscreen, with the memory device of the associate mobile computing device storing the associate application that, when executed, causes the processor of the associate mobile computing device to display a graphical user interface that is usable by an associate of the store
204
Receiving, from the customer mobile computing device, a signal including a unique customer identification associated with the customer mobile computing device, an indication that the customer has checked-in to pick up a customer order from the store, and a customer-selected time slot for picking up the customer order from the store
206
During the time slot, obtaining tracking information of a current location of the customer mobile computing device
208
Utilizing the tracking information to estimate an amount of travel time remaining until the customer mobile computing device arrives at the store
210
Transmitting a signal to the associate mobile computing device including the unique customer identification and a first estimated travel time remaining until the customer mobile computing device associated with the unique customer identification arrives at the store
212
Transmitting at least one signal to the associate mobile computing device including an updated estimated amount of travel time remaining until the customer mobile computing device arrives at the store and an instruction to display a graphical representation of the updated estimated amount of travel time remaining on the touchscreen of the associate mobile computing device

FIG. 2

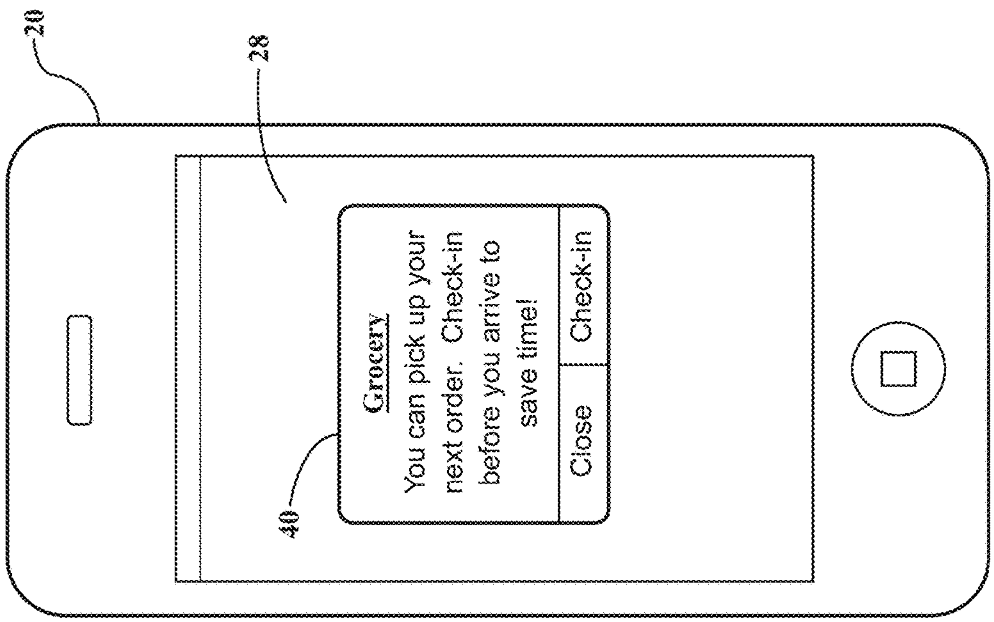
20
28
40
Grocery
You can pick up your next order. Check-in before you arrive to save time!
Close
Check-in

FIG. 4

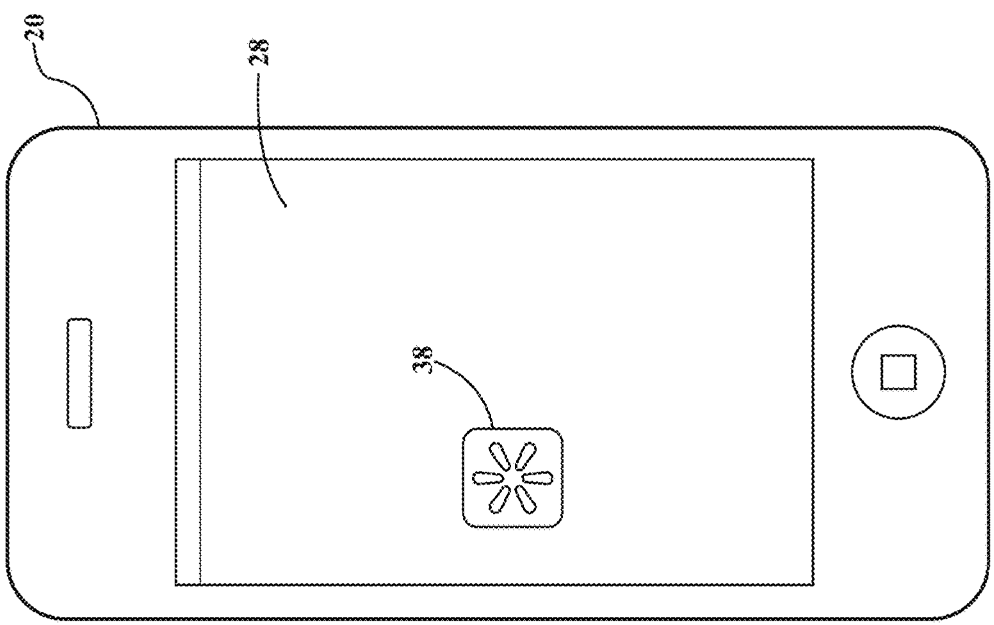
20
28
38

FIG. 3

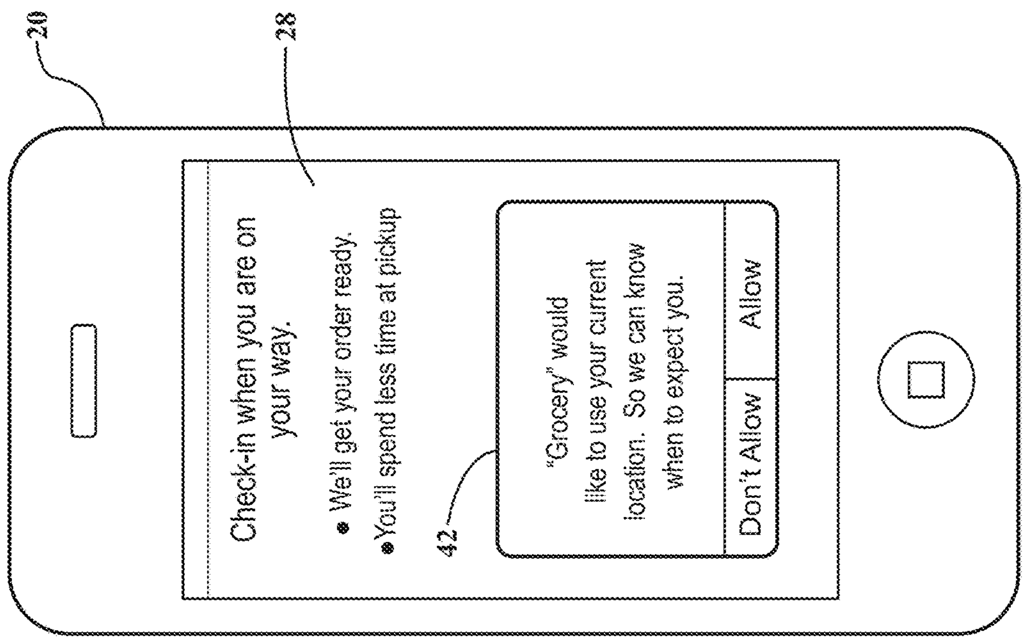
20
28
Check-in when you are on your way.
• We'll get your order ready.
• You'll spend less time at pickup
42
"Grocery" would like to use your current location. So we can know when to expect you.
Don't Allow
Allow

FIG. 5

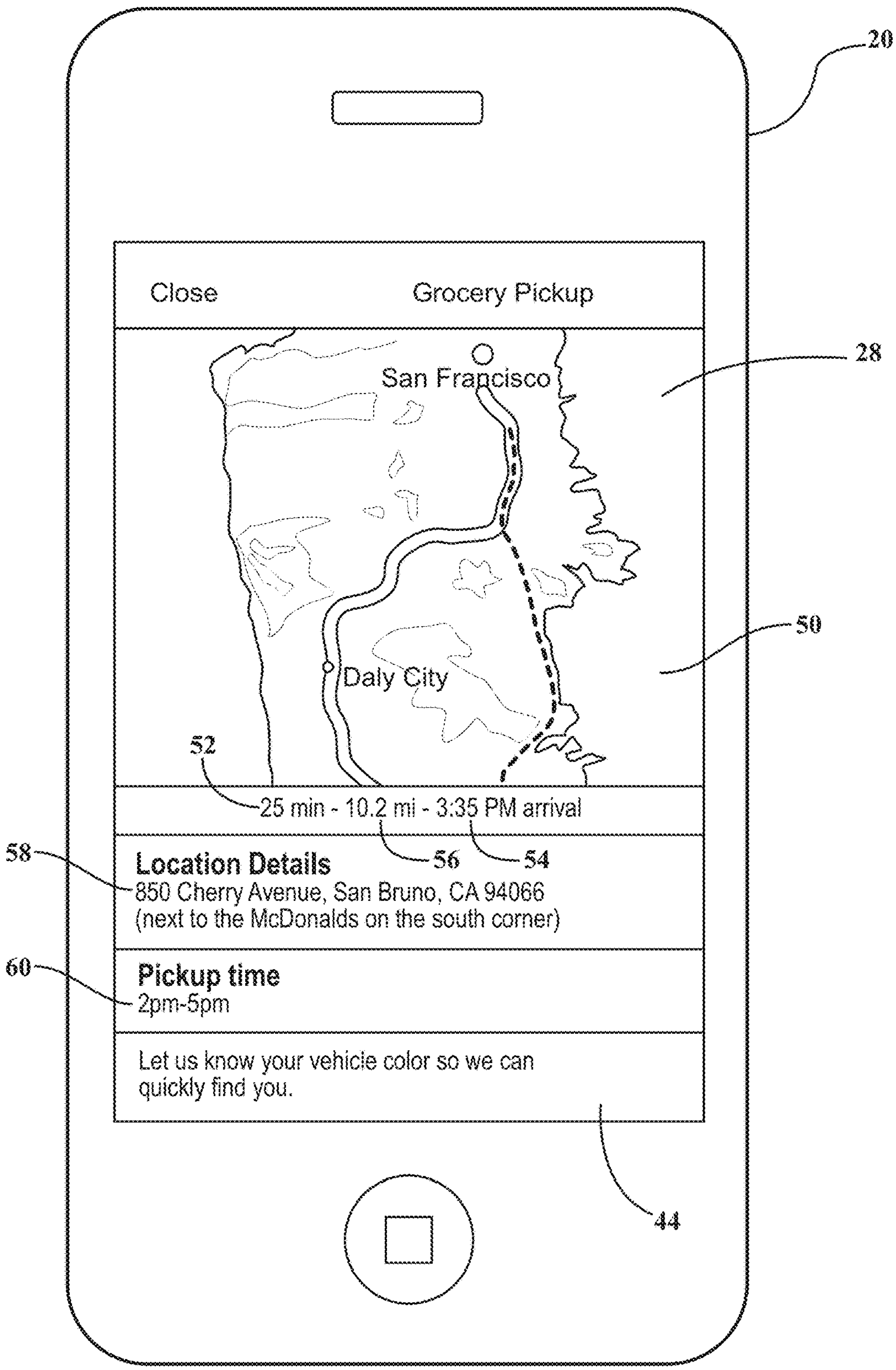
20
Close
Grocery Pickup
28
San Francisco
50
Daly City
52
25 min - 10.2 mi - 3:35 PM arrival
58
56
54
Location Details
850 Cherry Avenue, San Bruno, CA 94066
(next to the McDonalds on the south corner)
60
Pickup time
2pm-5pm
Let us know your vehicle color so we can
quickly find you.
44

FIG. 6

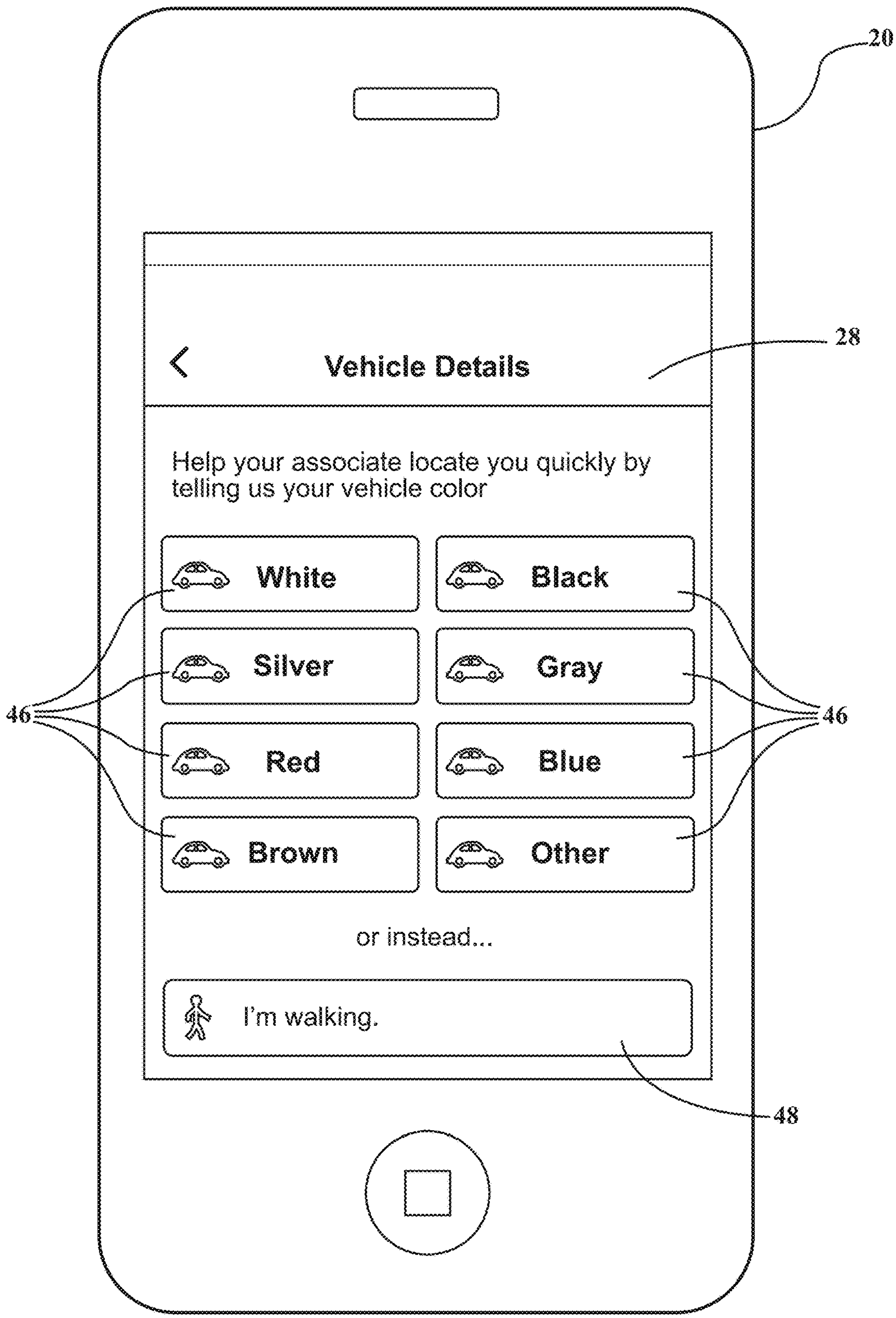
20
28
Vehicle Details
Help your associate locate you quickly by telling us your vehicle color
White
Black
Silver
Gray
Red
Blue
Brown
Other
46
46
or instead...
I'm walking.
48

FIG. 7

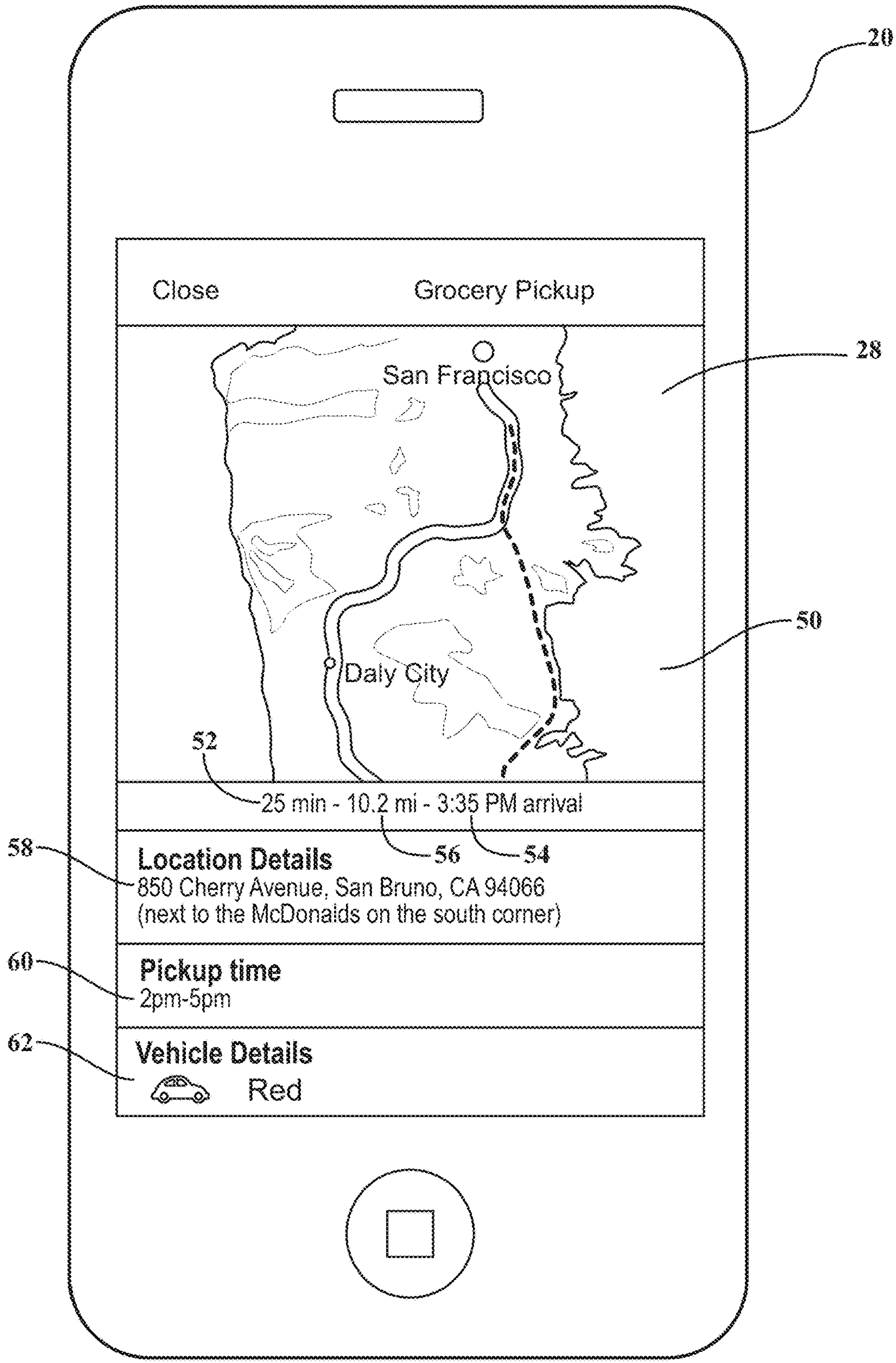
20
Close
Grocery Pickup
28
San Francisco
50
Daly City
52
25 min - 10.2 mi - 3:35 PM arrival
58
56
54
Location Details
850 Cherry Avenue, San Bruno, CA 94066
(next to the McDonaids on the south corner)
60
Pickup time
2pm-5pm
62
Vehicle Details
Red

FIG. 8

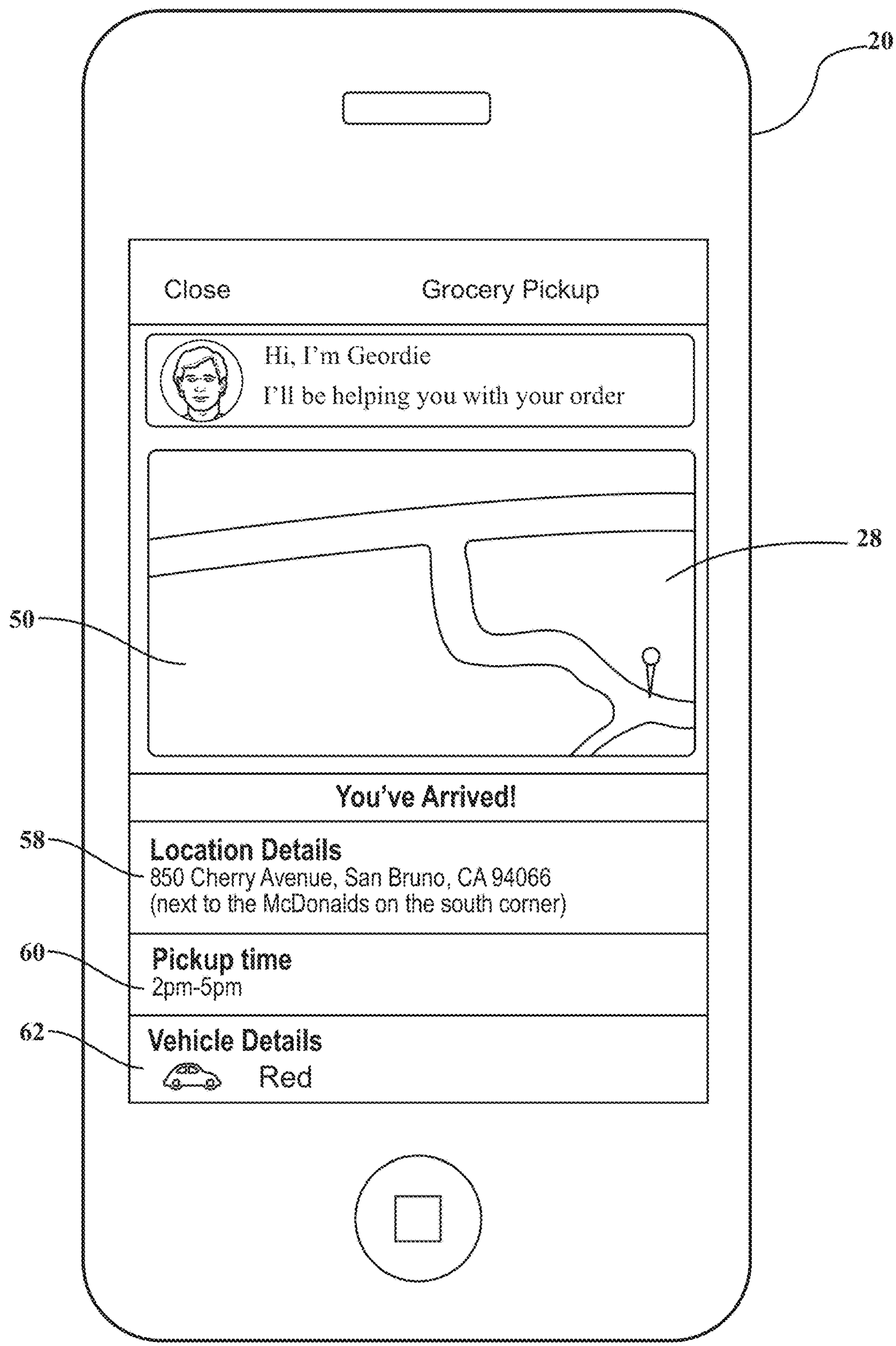
20
Close
Grocery Pickup
Hi, I'm Geordie
I'll be helping you with your order
28
50
You've Arrived!
58
Location Details
850 Cherry Avenue, San Bruno, CA 94066
(next to the McDonalds on the south corner)
60
Pickup time
2pm-5pm
62
Vehicle Details
Red

FIG. 9

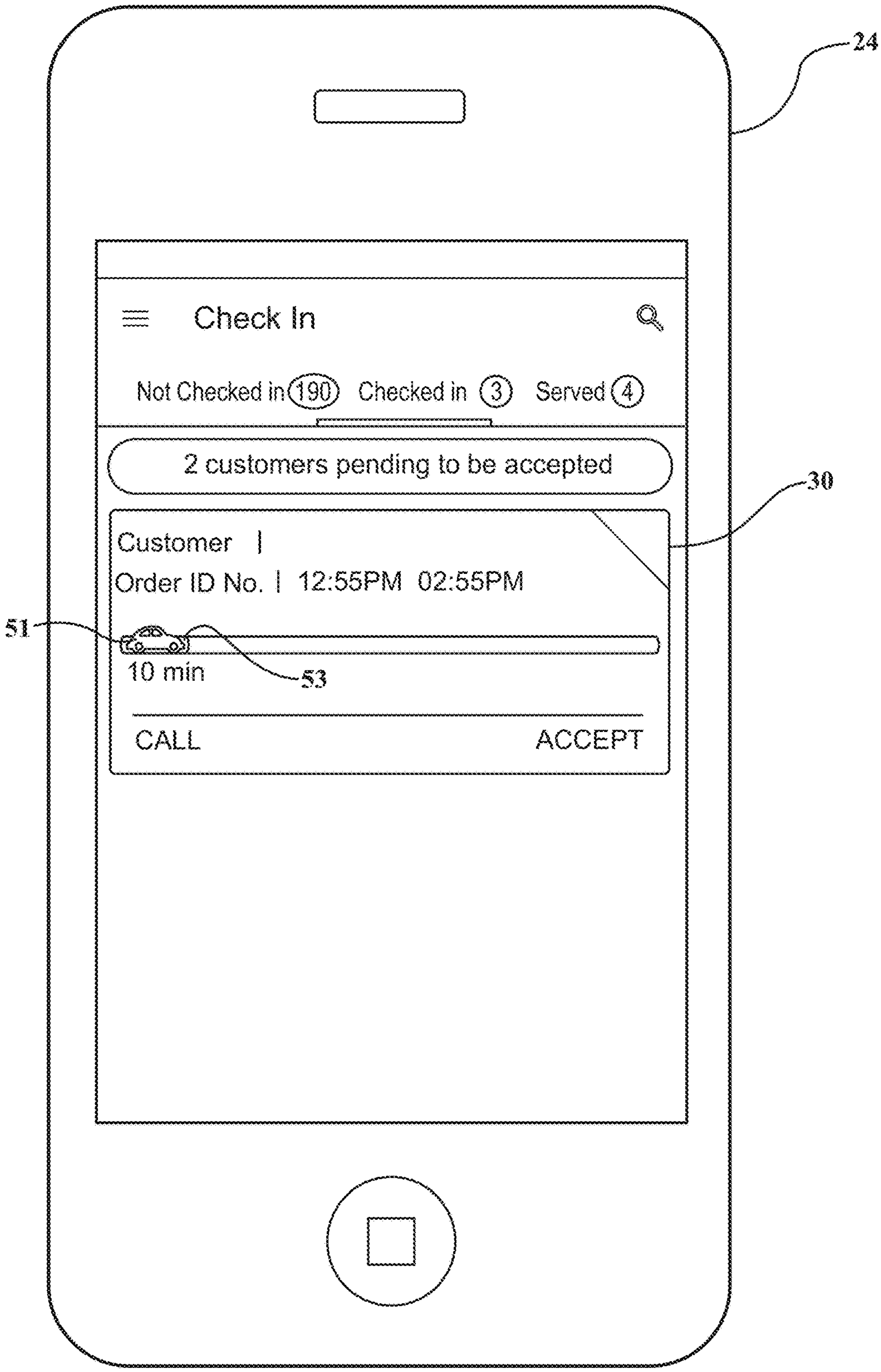
24
Check In
Not Checked in 190
Checked in 3
Served 4
2 customers pending to be accepted
30
Customer |
Order ID No. | 12:55PM 02:55PM
51
10 min
53
CALL
ACCEPT

FIG. 10

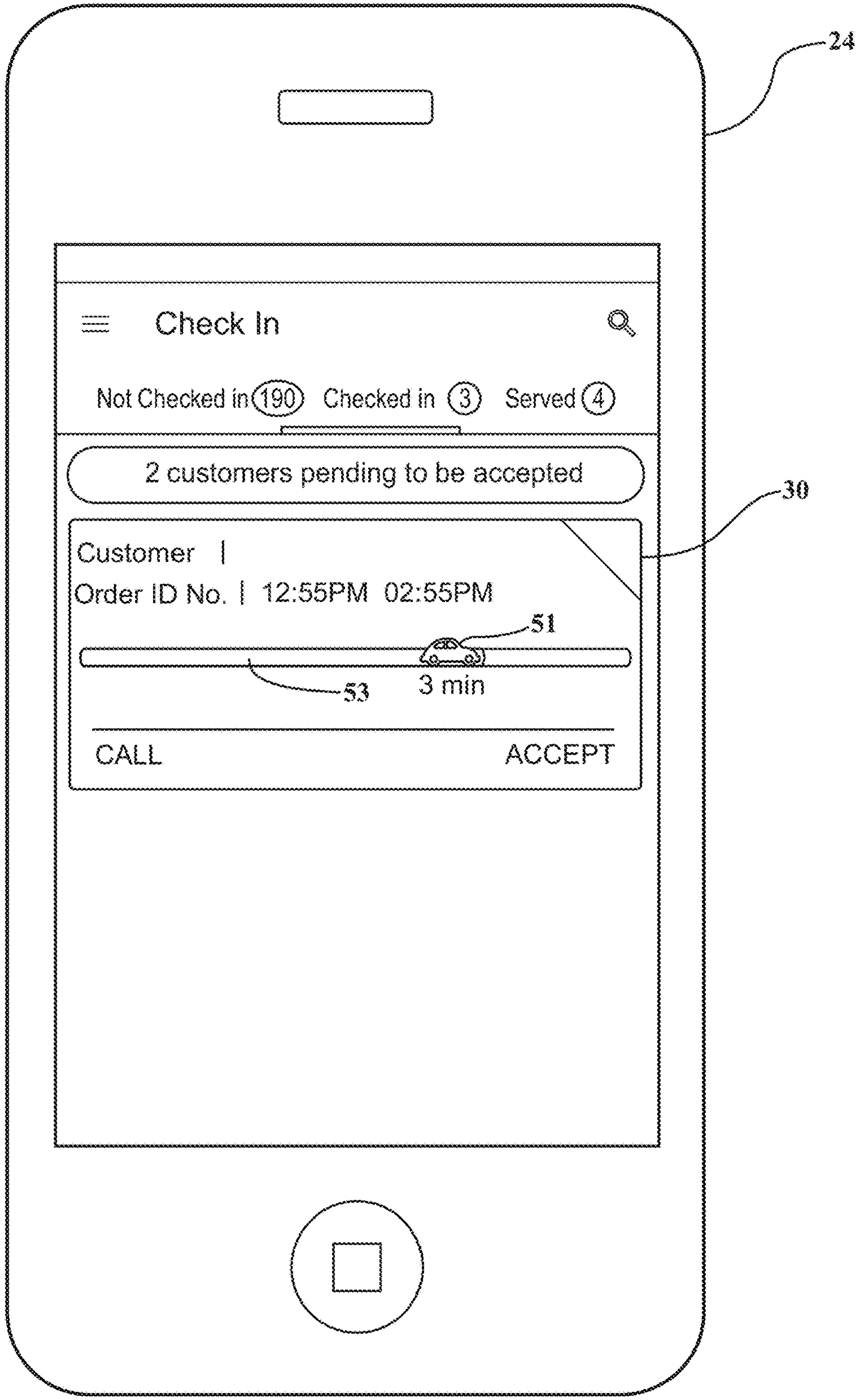
24
Check In
Not Checked in 190
Checked in 3
Served 4
2 customers pending to be accepted
30
Customer |
Order ID No. | 12:55PM 02:55PM
51
53
3 min
CALL
ACCEPT

FIG. 11

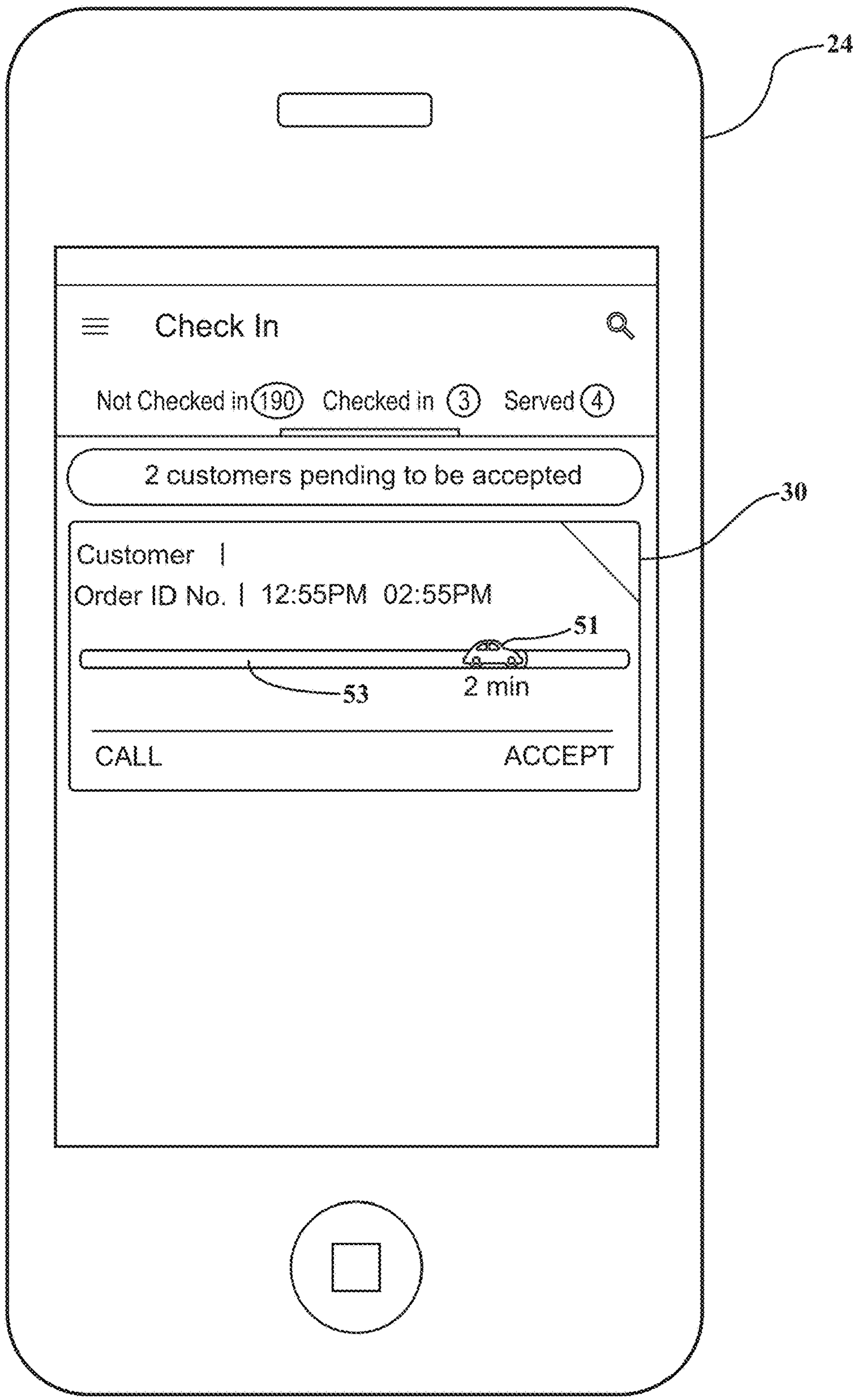
24
Check In
Not Checked in 190
Checked in 3
Served 4
2 customers pending to be accepted
30
Customer |
Order ID No. | 12:55PM 02:55PM
51
53
2 min
CALL
ACCEPT

FIG. 12

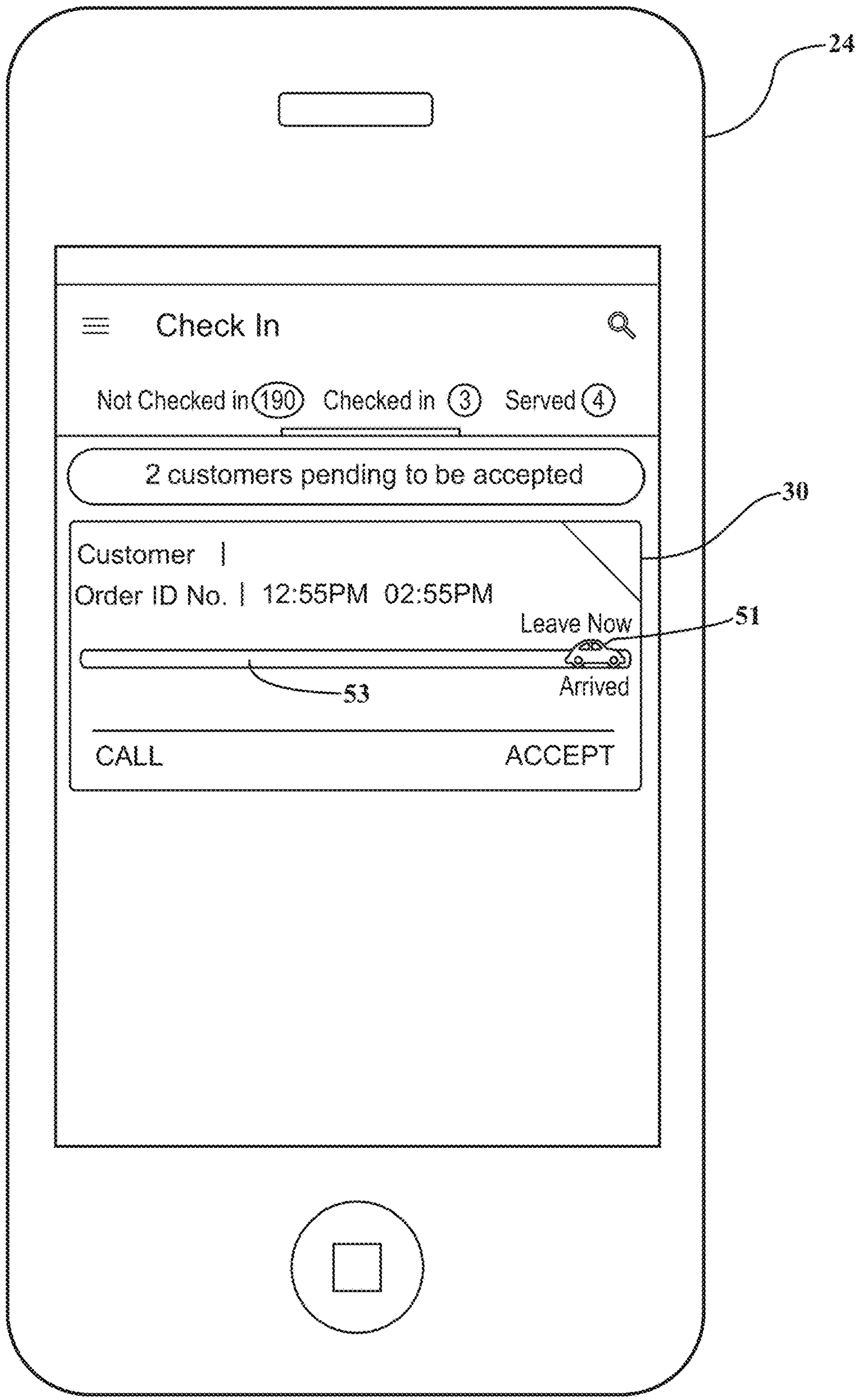
24
Check In
Not Checked in 190
Checked in 3
Served 4
2 customers pending to be accepted
30
Customer |
Order ID No. | 12:55PM 02:55PM
Leave Now
51
53
Arrived
CALL
ACCEPT

FIG. 13

300

Install a customer application on each of a plurality of customer mobile computing devices each having a processor, a memory device, and a touchscreen, with the memory device of the customer mobile computing device storing the customer application that, when executed, causes the processor of the customer mobile computing device to display a graphical user interface that is usable by the customer

302

Installing an associate application on an associate mobile computing device having a processor, a memory device, and a touchscreen, with the memory device of the associate mobile computing device storing the associate application that, when executed, causes the processor of the associate mobile computing device to display a graphical user interface that is usable by an associate of the store

304

Receiving, from each of the customer mobile computing devices, a signal including a unique customer identification associated with the customer mobile computing device and an indication that the customer has checked-in to pick-up a customer order from the store

306

Obtaining tracking information of a current location of each of the customer mobile computing devices

308

Utilizing the tracking information to estimate an amount of travel time remaining until each of the customer mobile computing devices arrive at the store

310

Transmitting a signal to the associate mobile computing device including the unique customer identification and a first estimated travel time remaining until the customer mobile computing device associated with the unique customer identification arrives at the store, the signal further including an instruction to display a listing, on the touchscreen of the associate mobile computing device, including the unique customer identification for each of the customer mobile computing devices and a graphical representation of the estimated travel time remaining for each of the customer mobile computing devices, with the listing including the unique customer identification arranged from the shortest to the longest travel time remaining until the customer mobile computing devices arrive at the store

312

Transmitting at least one signal to the associate mobile computing device including an updated estimated travel time remaining until each of the customer mobile computing devices arrive at the store, the signal further including an instruction to rearrange the unique customer identifications in the listing if the current order of the unique customer identifications based on the updated estimated remaining travel time is no longer ordered from the shortest to the longest remaining travel time

FIG. 14

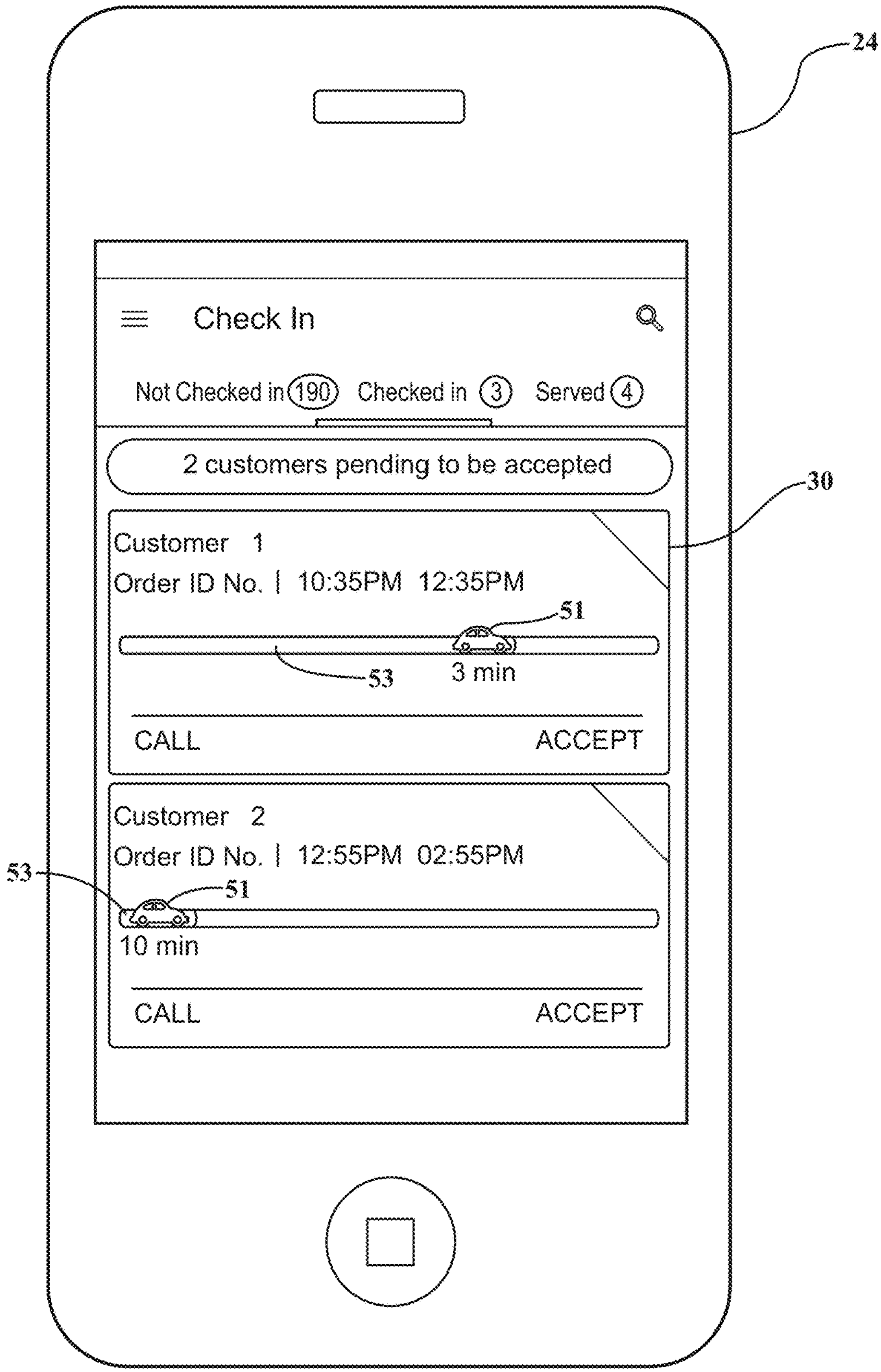
24
Check In
Not Checked in 190
Checked in 3
Served 4
2 customers pending to be accepted
30
Customer 1
Order ID No. | 10:35PM 12:35PM
51
53
3 min
CALL
ACCEPT
Customer 2
Order ID No. | 12:55PM 02:55PM
53
51
10 min
CALL
ACCEPT

FIG. 15

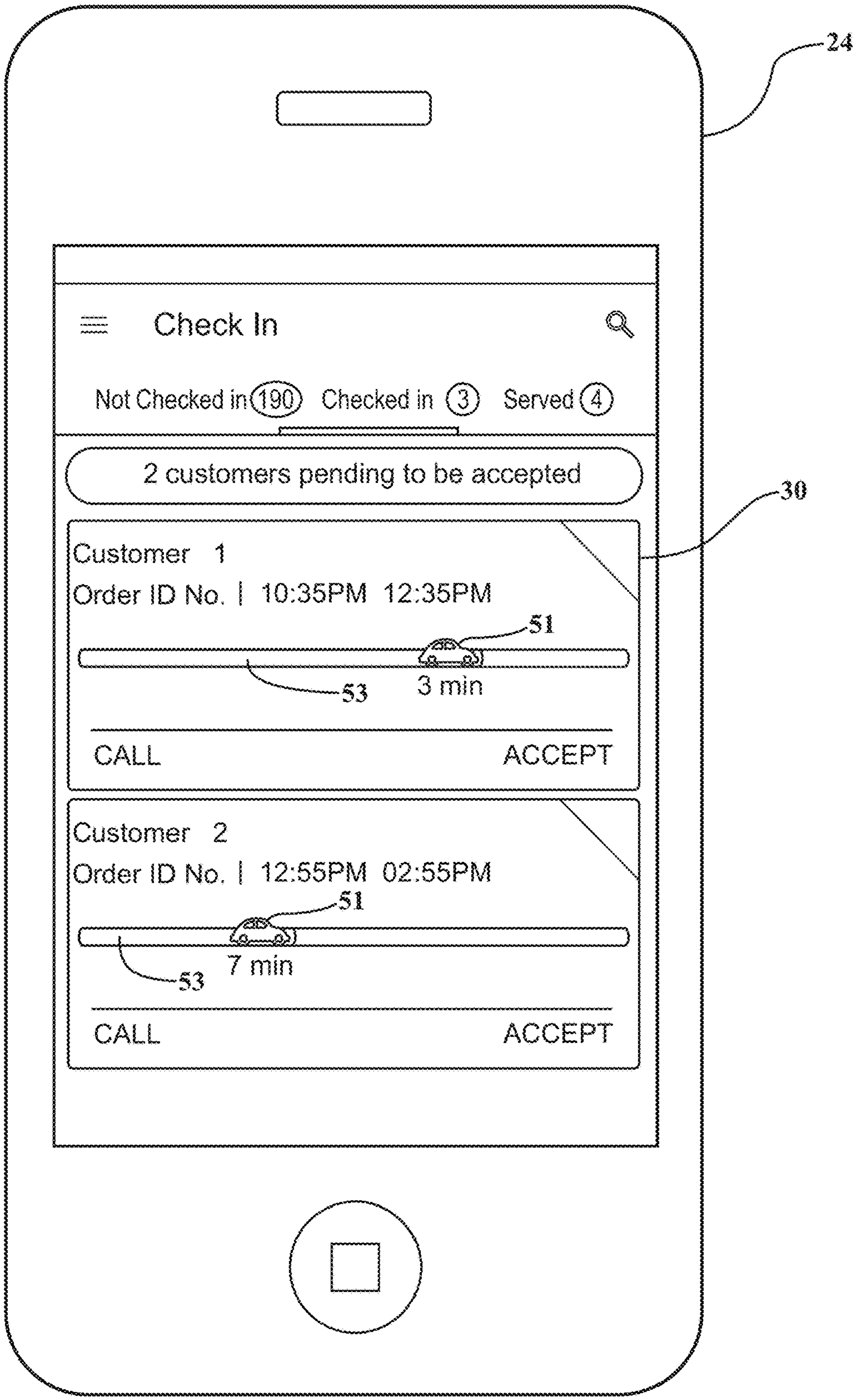
24
Check In
Not Checked in 190
Checked in 3
Served 4
2 customers pending to be accepted
30
Customer 1
Order ID No. | 10:35PM 12:35PM
51
53
3 min
CALL
ACCEPT
Customer 2
Order ID No. | 12:55PM 02:55PM
51
53
7 min
CALL
ACCEPT

FIG. 16

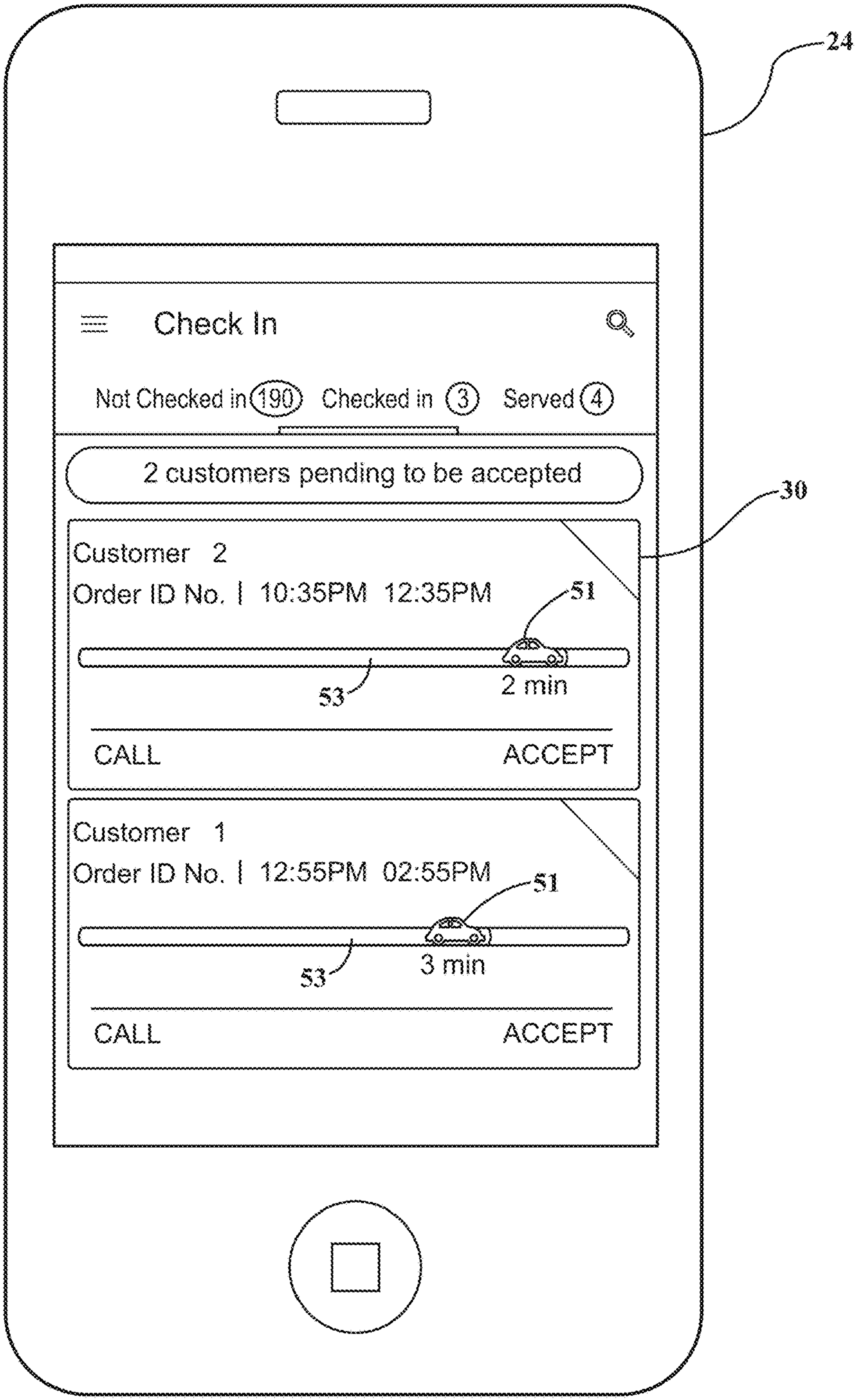
24
Check In
Not Checked in 190
Checked in 3
Served 4
2 customers pending to be accepted
30
Customer 2
Order ID No. | 10:35PM 12:35PM
51
53
2 min
CALL
ACCEPT
Customer 1
Order ID No. | 12:55PM 02:55PM
51
53
3 min
CALL
ACCEPT

FIG. 17

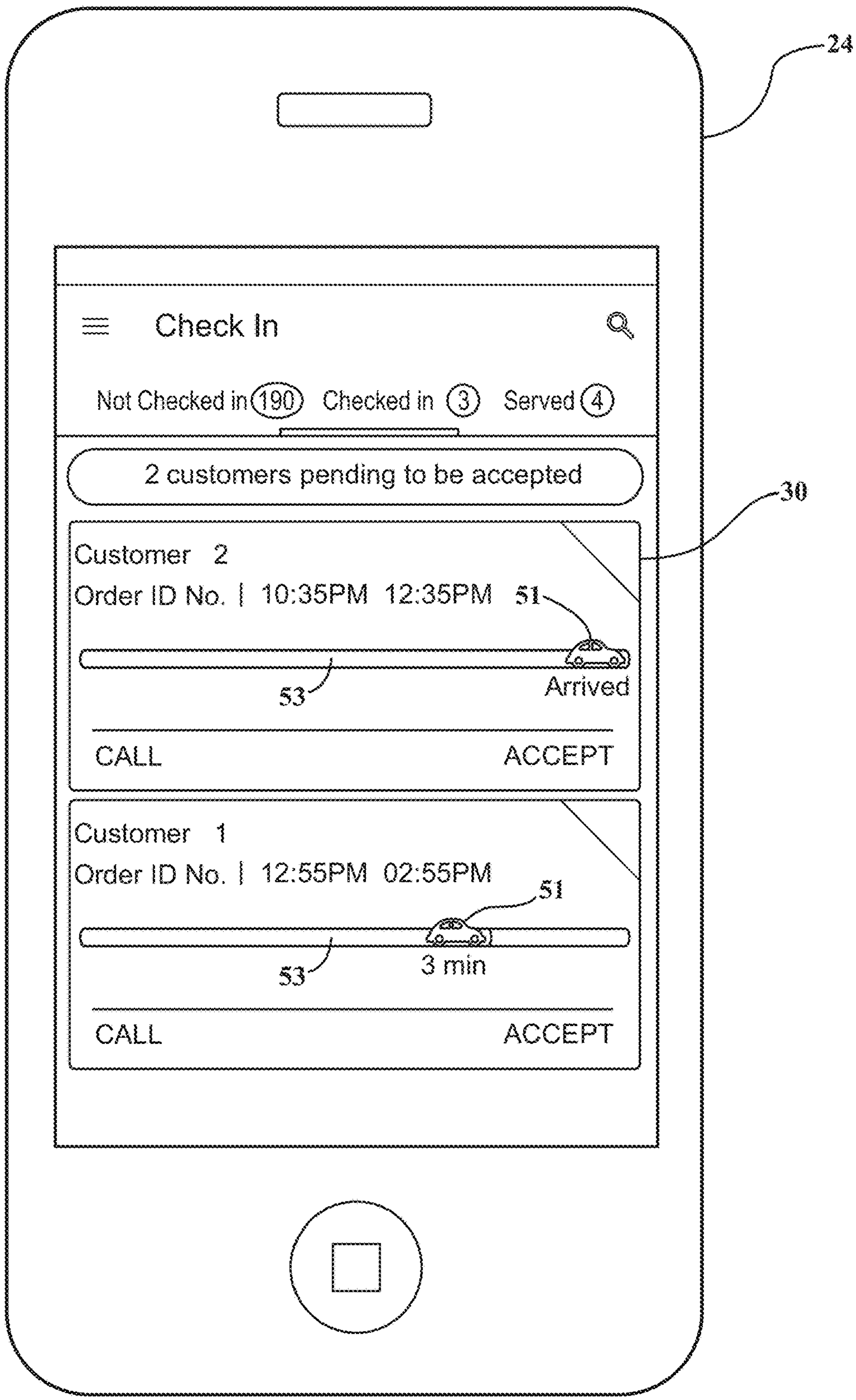
24
Check In
Not Checked in 190
Checked in 3
Served 4
2 customers pending to be accepted
30
Customer 2
Order ID No. | 10:35PM 12:35PM
51
53
Arrived
CALL
ACCEPT
Customer 1
Order ID No. | 12:55PM 02:55PM
51
53
3 min
CALL
ACCEPT

FIG. 18

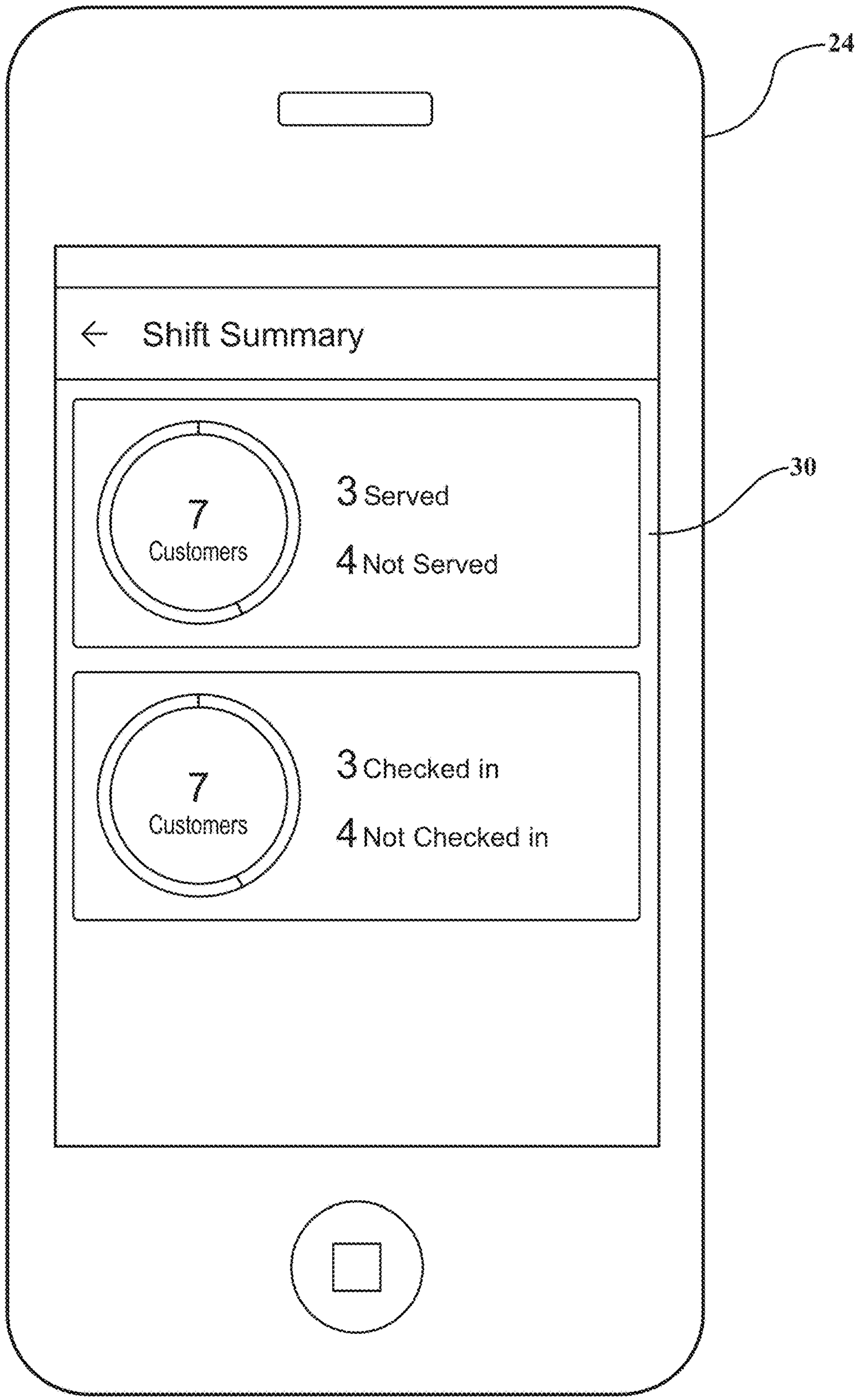
24
Shift Summary
7
Customers
3 Served
4 Not Served
30
7
Customers
3 Checked in
4 Not Checked in

FIG. 19

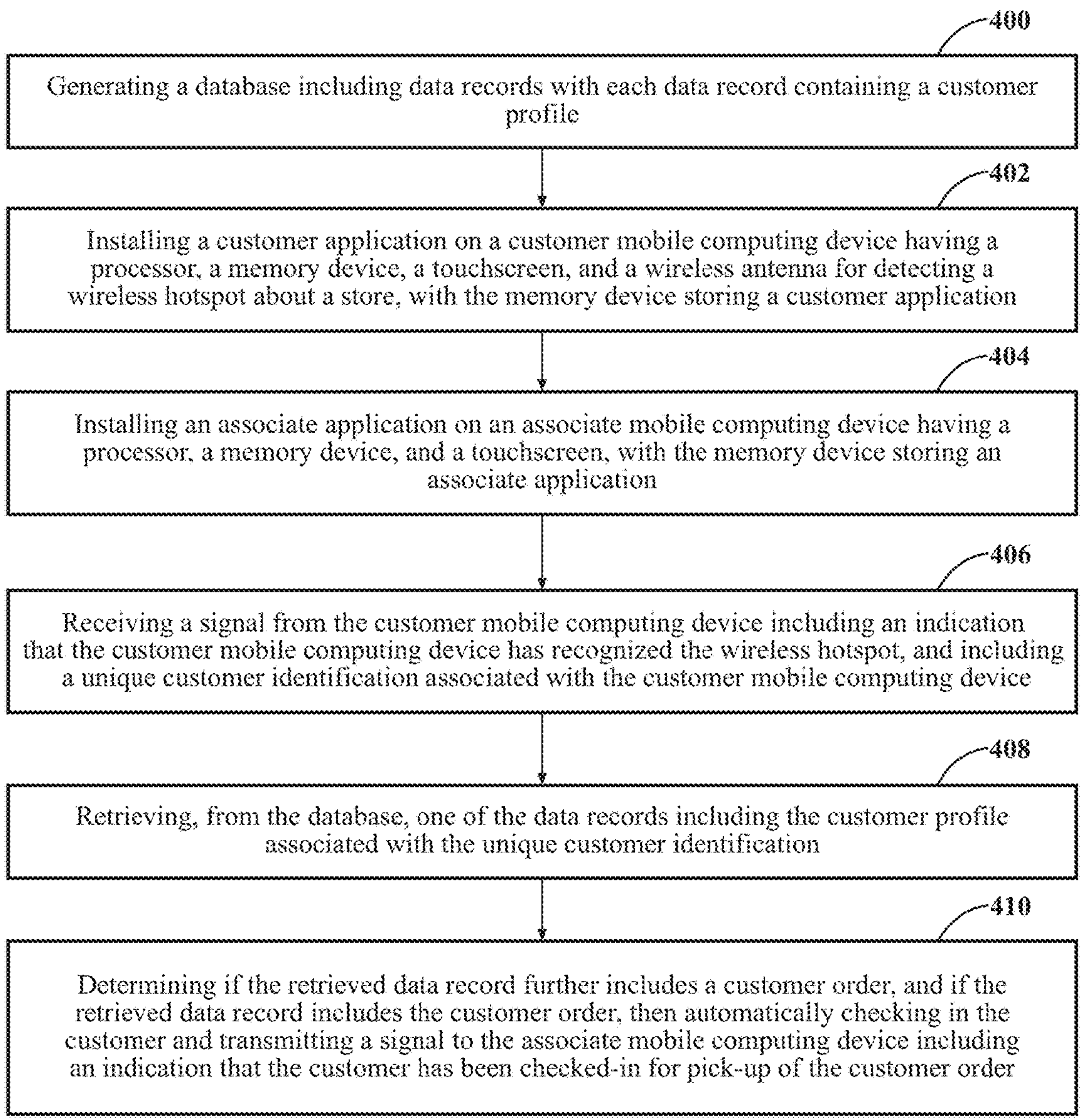
400
Generating a database including data records with each data record containing a customer profile
402
Installing a customer application on a customer mobile computing device having a processor, a memory device, a touchscreen, and a wireless antenna for detecting a wireless hotspot about a store, with the memory device storing a customer application
404
Installing an associate application on an associate mobile computing device having a processor, a memory device, and a touchscreen, with the memory device storing an associate application
406
Receiving a signal from the customer mobile computing device including an indication that the customer mobile computing device has recognized the wireless hotspot, and including a unique customer identification associated with the customer mobile computing device
408
Retrieving, from the database, one of the data records including the customer profile associated with the unique customer identification
410
Determining if the retrieved data record further includes a customer order, and if the retrieved data record includes the customer order, then automatically checking in the customer and transmitting a signal to the associate mobile computing device including an indication that the customer has been checked-in for pick-up of the customer order

FIG. 20

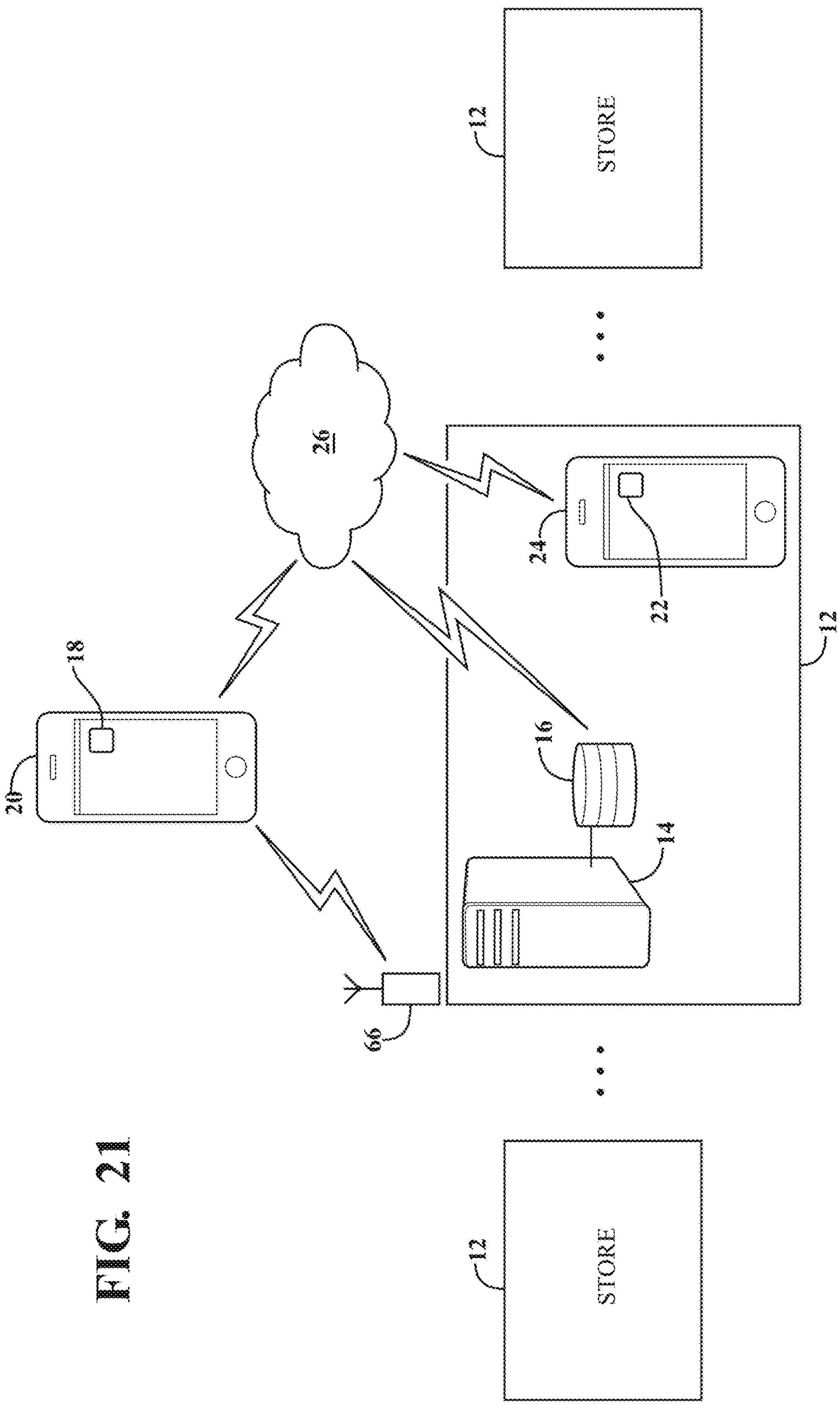

FIG. 21

SYSTEM, METHOD, AND NON-TRANSITORY COMPUTER-READABLE STORAGE MEDIA FOR AUTOMATICALLY CHECKING IN A CUSTOMER

FIELD OF THE DISCLOSURE

The present disclosure relates generally to systems, methods, and non-transitory computer-readable storage media for automatically checking-in a customer.

BACKGROUND

Many customers desire to order items or goods remotely, e.g., online, through the Internet, or using a specially designed application or app on a mobile computing device, such as a tablet or cellular phone. The customer may also desire that the items or goods set forth in the customer order be assembled and ready for the customer to pick-up at a specific location, e.g., at a particular store, typically at a specific time.

For pick-up orders, the store often sets or identifies a time slot for when the customer order will be ready for pick-up (such as, e.g., between 2:00 pm and 5:00 pm on Monday, Oct. 31, 2016). Typically, the customer order is filled and ready for pick-up at the beginning of the identified time slot (such as at 2:00 pm in the previous example). However, in some instances, the customer may not arrive at the store until the end of the time slot (such as around 5:00 pm in the previous example) or shortly thereafter. For grocery orders, particularly if the order is filled at the beginning of the time slot, certain perishable items could spoil and/or frozen items could thaw while waiting for the customer to arrive to pick-up the order. To prevent this spoilage or undesirable thawing from happening, the store associate may wait until the customer arrives before filling the order. However, such method for filling customer orders is inefficient, and often undesirably increases customer wait time.

The present disclosure is aimed at solving the problems identified above.

SUMMARY

In different embodiments of the present disclosure, systems and non-transitory computer-readable storage media are provided for checking-in a customer.

In one embodiment of the present disclosure, a system for automatically checking-in a customer of a store comprises a database including data records with each data record containing a customer profile and a server computer of a store coupled to the database and including a processor coupled to a memory device. The processor is programmed to: install a customer application on a customer mobile computing device having a processor, a memory device, a touchscreen, and a wireless antenna for detecting a wireless hotspot about the store, with the memory device of the customer mobile computing device storing the customer application that, when executed, causes the processor of the customer mobile computing device to display a graphical user interface that is usable by a customer; install an associate application on an associate mobile computing device having a processor, a memory device, and a touchscreen, with the memory device of the associate mobile computing device storing the associate application that, when executed, causes the processor of the associate mobile computing device to display a graphical user interface that is usable by an associate of the store; receive a signal from the customer mobile computing

device including an indication that the customer mobile computing device has recognized the wireless hotspot, and including a unique customer identification associated with the customer mobile computing device; retrieve, from the database, one of the data records including the customer profile associated with the unique customer identification; determine if the retrieved data record further includes a customer order at the store; and if the retrieved data record includes the customer order, then automatically check-in the customer and transmit a signal to the associate mobile computing device including an indication that the customer has been checked-in for pick-up of the customer order.

In another embodiment of the present disclosure, a computer-implemented method for automatically checking-in a customer comprises a processor performing the steps of: generating a database including data records with each record containing a customer profile; installing a customer application on a customer mobile computing device having a processor, a memory device, a touchscreen, and a wireless antenna for detecting a wireless hotspot about a store, with the memory device storing a customer application; installing an associate application on an associate mobile computing device having a processor, a memory device, and a touchscreen, with the memory device storing an associate application; receiving a signal from the customer mobile computing device that the customer mobile computing device has recognized the wireless hotspot, and including a unique customer identification associated with the customer mobile computing device; retrieving, from the database, one of the data records including the customer profile associated with the unique customer identification; determining if the retrieved data record further includes a customer order; and if the retrieved data record includes the customer order, then automatically checking-in the customer and transmitting a signal to the associate mobile computing device including an indication that the customer has been checked-in for pick-up of the customer order.

In another embodiment of the present disclosure, one or more non-transitory computer-readable storage media, having computer executable instructions embodied thereon, that when executed by at least one processor, the computer-executable instructions causes the processor to: operate a customer mobile computing device to display a graphical user interface that is usable by a customer on a touchscreen of the customer mobile computing device, the customer mobile computing device further including a wireless antenna for detecting a wireless hotspot about a store; operate an associate mobile computing device to display a graphical user interface that is usable by an associate of a store on a touchscreen of the associate mobile computing device; operate the server computer to receive a signal from the customer mobile computing device that the customer mobile computing device has recognized the wireless hotspot, and including a unique customer identification associated with the customer mobile computing device; operate the server computer to retrieve, from a database, a data record including a customer profile associated with the unique customer identification; operate the server computer to determine if the retrieved data record further includes a customer order; and if the retrieved data record includes the customer order, then operate the server computer to check-in the customer and transmit a signal to the associate mobile computing device including an indication that the customer has been checked-in for pick-up of the customer order.

BRIEF DESCRIPTION OF THE DRAWINGS

Advantages of the present disclosure will be readily appreciated, as the same becomes better understood by reference to the following detailed description, when considered in connection with the accompanying drawings. Non-limiting and non-exhaustive embodiments and examples of the present disclosure are described with reference to the following figures, wherein like numerals refer to like parts throughout the various views unless otherwise specified.

FIG. **1** is a schematic illustrating an embodiment of a customer check-in system.

FIG. **2** is a flow diagram illustrating an embodiment of a method for checking-in a customer.

FIGS. **3-9** illustrate examples of different screens displayed on a touchscreen of a customer mobile computing device that are generated by a server computer of a store through a customer application resident on the customer mobile computing device.

FIGS. **10-13** illustrate examples of different screens displayed on a touchscreen of an associate mobile computing device that are generated by a server computer of a store through an associate application resident on the associate mobile computing device.

FIG. **14** is a flow diagram illustrating another embodiment of a method for checking-in a customer.

FIGS. **15-19** illustrate further examples of different screens displayed on a touchscreen of an associate mobile computing device that are generated by the server computer at the store through an associate application resident on the associate mobile computing device.

FIG. **20** is a flow diagram illustrating an embodiment of a method for automatically checking-in a customer.

FIG. **21** is a schematic illustrating an embodiment of a system for automatically checking-in a customer.

DETAILED DESCRIPTION

In the following description, numerous specific details are set forth in order to provide a thorough understanding of the present disclosure. It will be apparent, however, to one having ordinary skill in the art that the specific detail need not be employed to practice the present disclosure. In other instances, well-known materials or methods have not been described in detail in order to avoid obscuring the present disclosure.

Reference throughout this specification to "one embodiment," "an embodiment," "one example," or "an example" means that a particular feature, structure, or characteristic described in connection with the embodiment or example is included in at least one embodiment of the present disclosure. Thus, appearances of the phrases "in one embodiment," "in an embodiment," "in one example," or "in an example" in various places throughout this specification are not necessarily all referring to the same embodiment or example. Furthermore, the particular features, structures, or characteristics may be combined in any suitable combinations and/or sub-combinations in one or more embodiments or examples. In addition, it is appreciated that the figures provided herewith are for explanation purposes to persons ordinarily skilled in the art and that the drawings are not necessarily drawn to scale.

Embodiments and/or examples in accordance with the present disclosure may be embodied as an apparatus, a method, or a computer program product. Accordingly, the present disclosure may take the form of an entirely hardware embodiment, an entirely software embodiment (including firmware, resident software, micro-code, etc.), or an embodiment combining software and hardware aspects that may all generally be referred to herein as a "module" or

"system". Furthermore, the present disclosure may take the form of a computer program product embodied in any tangible media or expression having computer-usable program code embodied in the media.

Any combination of one or more computer-usable or computer-readable media (or medium) may be utilized. For example, computer-readable media may include one or more of a portable computer diskette, a hard disk, a random access memory (RAM) device, a read-only memory (ROM) device, an erasable programmable read-only memory (EPROM or Flash memory) device, a portable compact disc read-only memory (CDROM) device, an optical storage device, and a magnetic storage device. Computer program code (e.g., computer-executable instructions) for carrying out operations of the present disclosure may be written in any combination of one or more programming languages.

Embodiments may also be implemented in cloud computing environments. In this description and the following claims, "cloud computing" may be defined as a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisional via virtualization and released with minimal management effort or service provider interaction, and then scaled accordingly. A cloud model can be composed of various characteristics (e.g., on-demand self-service, broad network access, resource pooling, rapid elasticity, measured service, etc.), service models (e.g., Software as a Service ("SaaS"), Platform as a Service ("PaaS"), Infrastructure as a Service ("IaaS"), and deployment models (e.g., private cloud, community cloud, public cloud, hybrid cloud, etc.).

The flowchart and block diagrams(s) in the flow diagram(s) illustrate the architecture, functionality, and operation of possible implementations of systems, methods, and computer program products according to various embodiments of the present disclosure. In this regard, each block in the flowchart or block diagrams may represent a module, segment, or portion of code, which comprises one or more executable instructions for implementing the specified logical function(s). It will also be noted that each block of the block diagram(s) and/or flowchart illustration(s), and combinations of blocks in the block diagram(s) and/or flowchart illustration(s), may be implemented by special purpose hardware-based systems that perform the specified functions or acts, or combinations of special purpose hardware-based systems that perform the specified functions or acts, or combinations of special purpose hardware and computer instructions. These computer program instructions may also be stored in a computer-readable media that can direct a computer or other programmable data processing apparatus to function in a particular manner, such that the instructions stored in the computer-readable media product an article of manufacture including instruction means which implement the function/act specified in the flowchart and/or block diagram block or blocks.

Several (or different) elements discussed below, and/or claimed, are described as being "coupled," "in communication with," or "configured to be in communication with." This terminology is intended to be non-limiting, and where appropriate, be interpreted to include without limitation, wired and wireless communication using any one or a plurality of suitable protocols, as well as communication methods that are constantly maintained, are made on a periodic basis, and/or made or initiated on an as needed basis.

In addition, and for clarity in discussing the various functions of the system of the present disclosure, multiple server computers (or just computers or servers) are discussed as performing different functions. These different server computers may, however, be implemented in different ways such as modules within a single computer, as nodes of a computer system, etc. The functions performed by the system (or nodes or modules) may be centralized or distributed in any suitable manner across the system and its components, regardless of the location of specific hardware. Furthermore, specific components of the system may be referenced using functional terminology in their names. The functional terminology is used solely for the purposes of naming convention and to distinguish one element from another in the following discussion. Unless otherwise specified, the name of an element conveys no specific functionality to the element or component.

With reference to the figures, and in operation, the present disclosure provides a system **10**, method, and one or more non-transitory computer-readable storage media for checking-in a customer. In certain embodiments, the present disclosure describes how a customer can utilize a customer application stored or resident on his/her mobile computing device (i.e., the customer mobile computing device) to check-in for picking up a customer order from a store. In these embodiments, the present disclosure further describes how a processor of a server computer associated with the store notifies an associate at the store (such as by pushing a notification signal to the associate's mobile computing device) that the customer has checked-in. The server computer also and tracks the location of the customer mobile computing device in order to determine an amount of travel time remaining before the customer arrives at the store. The server computer also determines the customer's approximate arrival time based on the current location of the customer mobile computing device. The travel time remaining and approximate arrival time can be used, by the associate at the store (which is displayed on the touchscreen of the associate mobile computing device), to gauge when he/she should begin filling the customer order so that the order is ready by the time the customer arrives at the store. In other embodiments, the present disclosure describes how a server computer at the store can detect when the customer mobile computing device is near and/or approaching the store, and upon determining that the customer has a pending customer order, the server computer can automatically check-in the customer for pick-up of the customer order.

The embodiments of the present disclosure advantageously provide an improvement with servicing customers of a store who have pending customer orders for pick-up. Utilizing the customer application resident on the customer mobile computing device, the customer can check-in and, in certain embodiments, select a time slot for picking up the order. By tracking the location of the customer mobile device, the server computer can notify an associate at the store that the customer is on his/her way and provide an estimate for an amount of time remaining until the customer is expected to arrive at the store. In this way, the efficiency of filling a customer order by the store is improved in that the associate has been timely notified so that he/she can have the order ready by the time the customer arrives. In addition, the efficiency of the customer is also improved in that the customer typically does not have to wait for his/her order once the customer has arrived at the store.

The embodiments of the present disclosure also advantageously improves the functionality of the server computer in that the server computer can track the location of the customer mobile computing device to determine how far away the customer is and how long before the customer arrives at the store. The server computer is improved, as well as the functionality and efficiency of the customer pick-up system by the store, by utilizing the tracking information to determine when a customer is expected to arrive or when the customer turns around and is no longer heading toward the store. In instances where the customer turns around, the server computer can push a notification signal to the associate mobile computing device that the customer has turned around and to put items of the customer order back on the shelves, in the freezer, etc. In certain embodiments, the server computer is also improved by being able to automatically check a customer in by detecting that the customer mobile computing device is within a wireless hotspot associated with and/or about the store. When automatically checked-in, the server computer can push a notification signal to the associate mobile computing device that the customer is on his/her way to pick-up a pending customer order.

An example of a customer check-in system **10** is shown in FIG. **1**. It will be understood that the present disclosure, as generally described and illustrated in the figures, could be arranged and designed in a wide variety of different configurations. Thus, the following more detailed description of the embodiments of the present disclosure, as represented in the figures, is not intended to limit the scope of the present disclosure, as claimed, but is merely representative of certain examples of presently contemplated embodiments in accordance with the present disclosure. The presently described embodiments may be understood by reference to the figures, where like parts are designated by like numerals throughout.

Referring to the example set forth in FIG. **1**, the system **10** includes a store **12**, such as a retail store. Specific non-limiting examples of stores include a clothing store, a shoe store, a grocery store, an accessory store, an office supply store, a furniture store, a toy/hobby store, a pet supply store, a hardware store, a home remodeling store, and/or like. In some examples, the store **12** is a combination of retail stores, such as a store which sells clothing, shoes, and grocery, a stores that sells office supplies and furniture, etc. In one particular example, the store **12** is a grocery store.

In an embodiment, the store **12** may be a physical establishment designed for the direct sale of products to a customer. In another embodiment, the store **12** is or includes a web-based store for the sale of products to a customer through the Internet. In another embodiment, the store **12** includes a central office (such as a headquarters) and a plurality of shops designed for the direct sale of products to a customer. In yet another embodiment, the store **12** includes a central office and a plurality of shops for the direct sale of products to a customer, as well as a web-based store for the sale of products over the Internet. In embodiments where the store **12** includes a plurality of shops, the store may include two, three, four . . . , hundreds, or even thousands of shops. Typically, the shops are located in various geographic locations, such as in different cities, in different towns, in different counties, on different streets or roads, on the same street but a mile or two away from one another, etc.

As shown, the system **10** further includes a server computer **14** of the store **12** and a database **16** coupled the server computer **14**. The server computer **14** includes a processor and a memory device coupled or connected to the database **16** to retrieve and store information contained in the database **16**. Typically, the server computer **14** and the database **16** are located at the central office of the store **12**. Alternatively, the server computer **14** and the database **16** may be located offsite (i.e., not at the central office), but are still considered to be part of the central office of the store **12**.

The processor of the server computer **14** executes various programs, and thereby controls components of the server computer **14**. The processor may be a single processor or a plurality of processors. Further, the processor may be a controller, a microcontroller, a microprocessor, an application specific integrated circuit (ASIC), or a processor working in conjunction with a central processing unit (CPU) performing the function of a general purpose computer. The processor of the server computer **14** may be configured to execute computer programs containing computer-readable and/or executable instructions for performing a selected process. In embodiments where the server computer **14** contains a plurality of processors, the processors can operate in parallel or distributed manner. In an example, the processor of the server computer **14** may execute various modules of the system **10**.

The memory coupled to the processor of the server computer **14** may include a read only memory (ROM) and random access memory (RAM) for storing the computer-readable and/or executable instructions of the computer programs. Further, the memory of the server computer **14** may be configured to store programs and information in the database **16**, and to retrieve information from the database **16** that may be used by the processor of the server computer **14**, a customer application **18** resident on a customer mobile computing device **20**, and/or an associate application **22** resident on an associate mobile computing device **24** to perform various process steps associated with the operation of the customer check-in system. The memory may also include, but is not limited to, a hard disc drive, an optical disc drive, and/or a flash memory drive.

The database **16** contains or stores data records containing customer profile information. In an embodiment, the customer profile information includes a customer profile for at least one customer of the store **12**. The customer profile for each customer may include identification information of the customer, such as the customer's name, residential or postal address, phone number, electronic mailing (email) address, and other information such as account information (such as credit card information, billing information, coupons, credits, etc.), purchase history including copies of electronic receipts from the customer's previous purchases from the store, customer preferences, etc.

The database **16** further contains customer order information. The customer order information typically includes a list of items that the customer has selected for purchase from the store **12**. In an embodiment, the list of items set forth in the customer order information can be created utilizing the customer application **18** resident on the customer mobile computing device **20**. For instance, upon entering an appropriate login and password, the customer can access an inventory of the store **12** and select at least one item for purchase utilizing the application **18**. The customer application **18** forms a list containing all of the items selected by the customer, and the customer mobile computing device **20** transmits the list of items to the server computer **14** along with a unique customer identification. The server computer **14**, utilizing suitable computer program code, creates a customer order which includes the list of selected item(s) received from the customer mobile computing device **20**. The server computer **14** utilizes the unique customer identification to identify the appropriate customer profile stored in the database **16**, and links or associates the created customer order with the identified customer profile.

In instances where the store **12** includes or has associated therewith a plurality of shops located at different geographic locations, the customer may also designate a particular shop (typically by identifying the address of the particular shop, such as by selecting a particular location from a list of menu options or by typing in the address of the particular location into the customer application **18**) that the customer would prefer to pick-up his/her order from. The designation of the particular shop may be transmitted from the customer mobile computing device **20** to the server computer **14** of the store **12**, linked with the customer order, and stored together in the database **16**. Alternatively, the designation of the particular shop may be transmitted to the server computer **14** with the customer order, and then stored in the database **16**.

In an embodiment, each of a number of customers may generate a list of selected item(s), and the lists along with unique customer identifications are transmitted to the server computer **14** from the respective customer mobile computing devices **20**. The server computer **14** creates a customer order for each list (and designated shop if the store has a plurality of shops at different locations) received from the customer devices **20**, and stores the customer orders in the database **16** with each customer order being linked or associated with the appropriate customer profile. In this way, the server computer **14** generates the database **16** containing each customer order that is created, with each customer order being linked to the appropriate customer profile.

In an embodiment, the customer may utilize the customer application **18** to select a time slot for picking up the customer order (more particularly, the items set forth in the list generated by the customer) from the store. The time slot may include a date and a time range on that date that the customer is available to pick-up the customer order from the store. For example, the customer may select, utilizing the customer application **18** on his/her mobile device **20**, to pick-up the order on Oct. 28, 2016 between 2:00 and 5:00 pm. The customer mobile computing device **20** may transmit a signal to the server computer **14** including the customer-selected time slot, and the server computer **14** then links the customer-selected time slot with the customer order stored in the database **16**. In another embodiment, the server computer **14** selects a time slot for picking up the customer order and links the customer-selected time slot with the customer order stored in the database **16**. In this embodiment, the server computer **14** also transmits a signal to the customer mobile computing device **20** including the computer-selected time slot and an instruction to display the time slot on the customer mobile computing device **20**.

The customer profile, customer order information, and time slot may be stored in the same database **16**. In another embodiment, the database **16** may include several sub-databases, and customer profile, customer order information, and time slot may be stored in separate sub-databases. In still another embodiment, the database **16** may represent a plurality of databases with the customer profile stored in one of the databases, the customer order information stored in another one of the databases, and the time slot stored in yet another one of the databases.

As shown in FIG. **1**, the server computer **14** is coupled in communication to the customer mobile computing device **20** and the associate mobile computing device **24** via a communications network **26**. The communications network **26** may be any suitable connection, including the Internet, file transfer protocol (FTP), an Intranet, a local area network (LAN), a virtual private network (VPN), cellular networks, etc. Further, the communications network **26** may utilize any suitable or combination of technologies including, but not limited to, wired and wireless connections, always on connections, connections made periodically, and connections made when needed.

Each of the customer mobile computing device **20** and the associate mobile computing device **24** may include any suitable device that enables the customer and/or an associate at the store **12** to access and communicate with the system **10**, including sending and/or receiving information to and from the system **10** and displaying information retrieved from the system **10** to the customer and/or associate at the store **12**. Examples of the mobile computing devices **20**, **24** include, but are not limited to, a laptop or notebook computer, a tablet computer, a smartphone/tablet computer hybrid, a personal data assistant, a handheld mobile device including a cellular telephone, and/or the like. The mobile computing devices **20**, **24**, as well as any other connected computer systems and their components included in the system **10**, can create message related data and exchange message related data (e.g., near field communication (NFC) payloads, Bluetooth packets, Internet Protocol (IP) datagrams, and other higher layer protocols that utilize IP diagrams, such as Transmission Control Protocol (TCP), Hypertext Transfer Protocol (HTTP), Simple Mail Transfer Protocol (SMTP), etc.) over the communications network **26**.

In an embodiment, each of the mobile computing devices **20**, **24** is or includes a smartphone or tablet computer. In another embodiment, the each of the mobile computing devices **20**, **24** includes a processor coupled to a memory, and a database for storing various programs and data for use in operating the mobile computing devices **20**, **24**. Each of the mobile computing devices **20**, **24** may also include a display screen **28**, **30** one or more video imaging cameras, one or more speakers, a microphone, at least one input button, and one or more sensors including, but not limited to, a touch ID fingerprint sensor coupled to the input button, a barometer, a three-axis gyro, an accelerometer, a proximity sensor, and an ambient light sensor. The display screen **28**, **30** includes any type of device capable of displaying information to the customer utilizing the mobile computing devices **20**, **24**, respectively. An example of a display screen **28**, **30** includes a touchscreen display device. In addition, the mobile computing devices **20**, **24** may include a Wi-Fi antenna, a cellular network antenna, a Bluetooth communications device, assisted GPS unit and GLONASS, a digital compass, and an iBeacon microlocation device.

In an embodiment, each of the mobile computing devices **20**, **24** further includes a web browser stored in the memory. The processor of the mobile computing devices **20**, **24** executes the web browser program to display webpages on the display screen **28**, **30** that includes information received from the server computer **14** of the business to enable the customer to interact with and operate various functions associated with the server computer **14**. In addition, the mobile computing devices **20**, **24** may be programmed to store and execute a mobile program application (i.e., the customer application **18** and the associate application **22**) that displays a user interface **32**, **34** on the display screen **28**, **30** that allows the customer and/or associate to access the server computer **14** to retrieve and store information, as well as to interact with the server computer **14** for performing one or more process steps of checking-in a customer for picking up a customer order from the store.

The system **10** further includes a website host server **36** configured to host a website (such as a business website) that is accessible by the customer via any computing device having access to the Internet, such as the customer mobile computing device **20**. The website host server **36** retrieves and stores webpages associated with one or more websites in response to requests received from the customer via the customer mobile computing device **20**. The webpage allows the customer to interact with the website and provide the customer with access to his/her customer profile, customer order, and/or time slot stored in the database **16** by entering an appropriate login and password. In an embodiment, upon accessing the customer profile, the customer can enter, change, and/or update customer profile information such as the customer's name, address, phone number, etc.

As previously mentioned, the processor of the server computer **14** executes various programs, and thereby controls components of the server computer **14**. In an embodiment, the processor is programmed to install the customer application **18** on the customer mobile computing device **20** with the memory device of the customer mobile computing device **20** storing the customer application **18** that, when executed, causes the processor of the customer mobile computing device **20** to display the graphical user interface **32** that is usable by the customer. The processor is also programmed to install the associate application **22** on the associate mobile computing device **24** with the memory device of the associate mobile computing device **24** storing the associate application **22** that, when executed, causes the processor of the customer mobile computing device **24** to display the graphical user interface **34** that is usable by an associate of the store **12**. Each of the customer **18** and associate **22** applications that are installed on the customer **20** and associate **24** mobile computing devices is a computer program including computer-readable or computer-executable instructions stored in a non-transitory computer-readable medium/media that can direct a computing device (i.e., the customer mobile computing device **20** and the associate mobile computing device **24**) or other programmable data processing apparatus to function in a particular manner, such that the instructions stored in the computer-readable or computer-executable medium produce an article of manufacture including instruction means which implement the function/act specified in the flowchart and/or block diagram block or blocks.

In an embodiment, the customer application **18** may be installed or loaded onto the customer mobile computing device **20** to cause a series of operational steps to be performed to check-in a customer for picking up a customer order from the store. The associate application **22** may be installed or loaded onto the associate mobile computing device **24** to cause a series of operational steps to be performed to fill a customer order once the customer has or has been checked-in. Upon entering appropriate authentication information (such as an appropriate login and password), each of the applications **18**, **22** performs a series of operational steps of the embodiments of the customer check-in method of the present disclosure. For instance, the customer application **18** can be used, by the customer, to check-in to pick-up a customer order from the store **12**. Once the customer has checked-in, the customer application **18** may display a variety of information to the customer on the display screen **28**. In an embodiment, the customer application **18** displays the address of the store, an interactive map including a route to the store, the time slot for picking up the customer order, an arrival time, etc. The associate application **22** can be used to provide information to the associate at the store **12**, such as a notification that the customer has checked-in, an amount of travel time remaining until the customer arrives at the store **12** or shop based on the current location of the customer mobile computing device **20**, a customer-selected color of the customer's car, etc. Such information may be used by the associate in order to timely fill the customer order so that the customer order is ready when the customer arrives at the store.

Alternatively, the customer mobile computing device **20** may recognize a wireless hotspot about the store **12** (or a shop of the store **12**). The server computer **14** may identify that the customer mobile computing device **20** is near the store **12** or shop (e.g., within a wireless connection range of the store **12** or shop), check the database **16** to see if the customer associated with the customer device **20** has a pending customer order, and automatically check-in the customer to pick-up the customer order. Once the customer has been checked-in, the server computer **14** can push a notification signal to the customer mobile computing device **12** which, utilizing the customer application **18**, displays the notification to the customer on the touchscreen **28** that the customer has been checked-in to pick-up his/her order from the store **12**. The server computer **14** also sends a notification signal to the associate mobile computing device **24** which, utilizing the associate application **22**, displays the notification to the customer on the touchscreen **30** that the customer has been checked-in and to proceed with filling the customer order so that the order is ready by the time the customer arrives.

Referring now to FIG. **2**, an embodiment of a customer check-in method is described in detail below. This method utilizes the processor of the server computer **14** to perform the steps of: installing the customer application **18** on the customer mobile computing device **20** having a processor, a memory device, and a touchscreen **28**, with the memory device of the customer mobile computing device storing the customer application **18** that, when executed, causes the processor of the customer mobile computing device **20** to display the graphical user interface **32** that is usable by the customer (as shown in step **200**); installing an associate application **20** on an associate mobile computing device **24** having a processor, a memory device, and a touchscreen **30**, with the memory device of the associate mobile computing device **24** storing the associate application **22** that, when executed, causes the processor of the associate mobile computing device **24** to display the graphical user interface **34** that is usable by an associate of the store (as shown in step **202**); receiving, from the customer mobile computing device **20**, a signal including a unique customer identification associated with the customer mobile computing device **20**, an indication that the customer has checked-in to pick-up a customer order from the store, and a customer-selected time slot for picking up the customer order from the store (as shown in step **204**); during the time slot, obtaining tracking information of a current location of the customer mobile computing device **20** (as shown in step **206**); utilizing the tracking information to estimate an amount of travel time remaining until the customer mobile computing device **20** arrives at the store (as shown in step **208**); transmitting a signal to the associate mobile computing device **24** including the unique customer identification and a first estimated travel time remaining until the customer mobile computing device **20** associated with the unique customer identification arrives at the store (as shown in step **210**); and transmitting at least one signal to the associate mobile computing device **24** including an updated estimated amount of travel time remaining until the customer mobile computing device **20** arrives at the store and an instruction to display a graphical representation of the updated estimated amount of travel time remaining on the touchscreen **30** of the associate mobile computing device **24** (as shown in step **212**).

Details of this embodiment of the method are described below with reference to FIGS. **3-13**. In this embodiment of the method, which is described in detail below, the customer **20** and the associate **24** mobile computing devices are smartphones with the customer **18** and associate **22** applications loaded or resident on the devices **20**, **24**. While the figures illustrate the smartphones as resembling iPhones®, it is to be understood that any suitable smartphone can be used.

As shown in FIG. **3**, the customer can access the customer application **18** on the customer mobile computing device **20** by locating and selecting (via, e.g., the touch of the customer's finger) an icon **38** present on the display or touchscreen **28** of the customer mobile computing device **20**. In some instances, upon selecting the icon **38**, the customer may be required to enter appropriate identification information into a login screen, such as a login name and password. Upon entering the appropriate identification information, the customer is automatically identified by the customer application **18**. Alternatively, the customer's identification information may already be entered and stored such that when the customer application **18** is activated, the customer is already identified and can bypass the login screen.

Upon identifying the customer, the customer mobile computing device **20** (by instructions of the customer application **18** executed by the internal processor of the device **20**) displays a home screen on the display or touchscreen **28** of the customer mobile computing device **20**. In an example, the home screen may include a plurality of menu options, with one of the menu options including a Customer Order Pick-Up icon or button. Upon selecting a icon or button associated with customer order pick-up (such as by touching the icon or button utilizing the customer's finger), and as shown in FIG. **4**, the customer application **18** may display a prompt **40** on the touchscreen **28** for enabling the customer to check-in. By selecting a "Check-In" button displayed at the bottom of the prompt **40**, the customer has elected to check-in for picking up his/her customer order from the store **12**. By checking-in, the server computer **14** can initiate filling the customer order so that the customer order is filled by the time the customer arrives at the store **12**. The prompt **40** may also include a "Close" button that, when selected, the customer has elected not to check-in at that time. By not checking-in, the server computer **14** does not initiate filling the customer order. The customer can then wait until a later time to check-in.

When the customer selects the "Check-In" button displayed on the touchscreen **28** as shown in FIG. **4**, the customer application **18** displays a check-in screen on the touchscreen **28** including a prompt **42** inquiring whether or not the customer application **18** has permission use the current location of the customer mobile computing device **20**. This is shown in FIG. **5**. Said differently, the customer application **18** seeks permission or authorization from the customer to activate an internal GPS unit of the customer mobile computing device **20** to identify the current location of the customer mobile computing device **20**. With permission, the customer application **18** can obtain and transmit signals to the server computer **14** including tracking information with the current location of the customer mobile computing device **20**, typically until the customer (who is likely carrying the customer mobile computing device **20**) arrives at the store **12**.

In an embodiment, the customer gives permission to allow the server computer **14**, through the customer application **18** to track the current location of the customer mobile computing device **20** by selecting the "Allow" button displayed at the bottom of the prompt **42**, as shown in FIG. **5**.

Upon doing so, the mobile computing device **20** transmits, and server computer **14** receives from the customer mobile computing device **20** a signal including an indication that the server computer **14** is allowed or has permission to track the current location of the customer mobile computing device **20**. If the customer does not desire to give permission to track the current location of the device **20**, the customer can select the "Don't Allow" button displayed at the bottom of the prompt **42**, as also shown in FIG. **5**. Upon selecting the "Don't Allow" button, the customer application **18** does not allow the customer to check-in, and instead takes the customer back to the home screen. The home screen may include, for example, an icon or button enabling the customer to check-in, should the customer decide to check-in at a later time.

In an example, the prompt **42** shown in FIG. **5** may be presented to the customer each time the customer attempts to check-in to pick-up a customer order from the store. In another example, the prompt **42** may be presented for first time users, and once the customer has given permission to track the location of the device **20**, the prompt **42** may be automatically bypassed each time the customer attempts to check-in for subsequent pick-up orders. Accordingly, upon checking-in (such as by selecting the "Check-In" button), the customer is automatically checked-in without the server computer **14** having to seek permission to track the location of the customer mobile computing device **20**.

Once the customer has given permission for the server computer **14** to track the current location of the device **20**, the customer application **18** presents a customer order pick-up screen, such as the screen shown in FIG. **6**. As shown, the touchscreen **28** may display at least one of an interactive map **50** including vehicle route information (and upon activating the map, such as by touching the map with the customer's finger, the customer can access a map program that will provide detailed route information to the store **12**), an approximate amount of time **52** until the customer arrives at the store, an approximate arrival time **54**, a travel distance **56** to the store **12**, an address **58** of the store, and a time-slot **60** for picking up the order. The screen shown in FIG. **6** further includes a button **44** that, when selected, enables the customer to select the color of the car or vehicle that the customer plans to use for traveling to the store **12** to pick-up the customer order. The store utilizes the vehicle color to quickly identify the customer as soon as he/she arrives so that the associate can promptly serve the customer.

Upon selecting the button **44** displayed on the screen in FIG. **6**, the server computer **14** (via the customer application **18**) displays a Vehicle Details screen as shown in FIG. **7**. The Vehicle Details screen a plurality of buttons **46**, with each button **46** representing a different vehicle color (such as white, silver, red, brown, black, gray blue, and other). The screen shown in FIG. **7** also includes a button **48** indicating that the customer will be walking to the store to pick-up the order. The customer may select the button **48** in instances where the customer will not be driving a car to pick-up the customer order and, instead, will be walking or utilizing another form of transportation, such as a bicycle, roller-blades, a scooter, etc.

Upon selecting a vehicle color, the touchscreen **28** of the customer mobile computing device **20** displays the same information as previously displayed in FIG. **6** (including the interactive map **50** including vehicle route information, the approximate amount of time **52** until arrival at the store, the approximate arrival time **54**, the travel distance **56** to the store **12**, the address of the store **58**, the time-slot **60** for picking up the order, and an icon **62** identifying a customer-selected color of the vehicle that the customer plans to use to pick-up the customer order, as shown in FIG. **8**. In instances where the customer selects that he/she will be walking by selecting the button **48** on the touchscreen **28** shown in FIG. **7**, then the touchscreen **28** of the customer mobile computing device **20** displays the interactive map including vehicle route information, the approximate amount of time until arrival at the store, the approximate arrival time, the travel distance to the store, the address of the store, the time-slot for picking up the order and an icon identifying a customer-selected preference to walk to the store to pick-up the customer order.

It is to be understood that the customer is not required to pick a vehicle color, and therefore does not have to select the button **48** that leads to the Vehicle Details screen shown in FIG. **7** for picking the vehicle color. Without selecting a vehicle color, the touchscreen **28** of the customer mobile computing device **20** displays just the interactive map including vehicle route information, the approximate amount of time until arrival at the store, the approximate arrival time, the travel distance to the store, the address of the store, and the time-slot for picking up the order, as shown in FIG. **6**.

In an embodiment, the server computer **14** automatically selects a time slot for pick-up of the customer order by the customer. This time slot **60** is displayed on the touchscreen **28**, as shown, e.g., in FIG. **6**. In another embodiment, the customer utilizes the customer application **18** to select a time slot. The time slot may be selected, by the customer, at any time prior to checking-in. For instance, the customer may access the home screen utilizing the customer application **18** on the customer mobile computing device **20**, access the customer order pick-up option from the menu, and select a (or change a previously-selected) time slot for picking up a customer order. The time slot may be selected or changed, for example, by selecting a time slot from a menu, such as a drop-down menu displayed on the touchscreen **28** containing a plurality of time slots. Alternatively, the time slot may be changed, for example, by enabling the customer input a customer-selected time slot, such as by typing (using a keypad displayed on the touchscreen **28**) or dictating (by speaking into a microphone of the customer mobile computing device **20**) the customer-preferred time slot into the customer mobile computing device **20**. Once the customer has selected a time slot and saved it, the customer-selected time slot is transmitted from the device **20** to the server computer **14**, where the customer-selected time slot is associated with the customer order and stored in the database **16**. In an alternative embodiment, the customer application **18** may include a separate screen prompting the customer to select a time slot for pick-up of the customer order. This screen may, for example, be presented to the customer on the touchscreen **28** prior to the check-in screen shown in FIG. **4**.

In an embodiment, the customer application **18** may display, on the touchscreen **28** of the customer mobile computing device **20**, at least one notification to the customer that the customer-selected time slot is approaching. For example, the customer application **18** may display a prompt on the touchscreen **28** indicating to the customer that check-in time is 1 hour away, 30 minutes away, 15 minutes away, 5 minutes away, etc. The customer application **18** may also display at least one notification to the customer to check-in once the time slot begins if the customer has not yet checked-in. For instance, the customer application **18** may periodically display a notification to the customer reminding the customer to check-in after the beginning of the time slot in instances where the customer has not checked-in yet.

Once the customer has checked-in and made his/her selections utilizing the customer application **18**, the customer mobile computing device **20** transmits to the server computer **14** a signal including the unique customer identification associated with the customer mobile computing device **20**, an indication that the customer has checked-in to pick-up the customer order from the store, and a customer-selected time slot for picking up the customer order from the store. In instances where the customer selected a vehicle color or a preference to walk, the vehicle color or preference to walk is also transmitted from the customer mobile computing device **20** to the server computer **14**.

Upon receiving the transmission from the customer mobile computing device **20**, the server computer **14** transmits a signal to the associate mobile computing device **24** of one of the associates at the store including an indication that the customer has checked-in. In an embodiment, the transmission is sent from the server computer **14** to the associate mobile computing device **24** of each of the associates at the store with an offer to the associate to serve the customer. One of the associates may accept the offer by sending an acceptance transmission from his/her associate mobile computing device **24** to the server computer **14**. The acceptance transmission may include an identification of a store location and an identification of the associate available to fill the customer order. In another embodiment, the associate available to fill the customer order is preselected, e.g., by manager of the store or by the server computer **14** based on availability of associates during the time slot for pick-up. In this embodiment, the server computer **14** transmits the signal directly to the associate mobile computing device **24** of the preselected associate that the customer has checked-in. Once an associate has been selected, the server computer **14** transmits a signal to the customer mobile computing device **20** including an identification of the associate at the store who is filling the customer order, as shown in FIG. **9**.

In addition, once the customer has checked-in, the server computer **14** retrieves one of the data records from the database **16** including the customer order information associated with the unique customer identification, which is associated with the customer mobile computing device **20**. The server computer **14** then transmits a signal to the associate mobile computing device **24** including the retrieved data record containing the customer order information so the associate can begin filling the customer order, such as by retrieving items of the customer order from the shelves of the store **12** or shop.

After the customer has checked-in, and during the time slot, the server computer **14** obtains tracking information of the current location of the customer mobile computing device **20**. Utilizing the internal GPS unit of the customer mobile computing device **20**, the customer application **18** continuously records the current location of the customer mobile computing device **20** as the customer (who has the customer mobile computing device **20** with him/her, such as on his/her person or in the car with the customer) as the customer is traveling. The customer mobile computing device **20** continuously transmits signals to the server computer **14** including the recorded location of the customer mobile computing device **20** as the customer is traveling so that the server computer **14** can track the location of the customer. The server computer **14** utilizes the tracking information to identify the customer's current position, in what direction the customer is traveling, and how fast the customer is traveling. The tracking information is used, by the server computer **14**, to estimate an arrival time, a distance between the current location of the customer (i.e., the current location of the customer mobile computing device **20**) and the location of the store **12**, and an amount of travel time remaining until the customer (with the customer mobile computing device **20**) arrives at the store **12**.

Once the server computer **14** determines a travel time remaining until the customer arrives at the store **12** (utilizing the tracking information), the server computer **14** transmits a signal to the associate mobile computing device **24** including the unique customer identification (which is linked to the customer mobile computing device **20**) and a first estimated travel time remaining until the customer mobile computing device **20** associated with the unique customer identification arrives at the store. The server computer **14** also transmits a signal to the associate mobile computing device **24** including an instruction to display (utilizing the associate application **22**) the first travel time remaining along with a graphical representation on the touchscreen **30** of the associate mobile computing device **24**. As shown in FIG. **10**, the graphical representation of the travel time remaining displayed on the touchscreen **30** of the associate mobile computing device **24** includes an icon **51** that is moveable across the touchscreen **30** along a bar **53**. In an embodiment, the bar **53** has a changeable length that is representative of the estimated amount of travel time remaining until the customer mobile computing device **20** arrives at the store. While the icon **51** is shown in FIG. **10** as a car, any icon can be used, such as a truck, boat, airplane, bicycle, person, mobile cellular phone, etc. In addition, where the customer has selected the vehicle color, the icon **51** may be shown as having the customer-selected vehicle color. For example, if the customer selected the vehicle color red, then the icon **51** would have the color red when displayed on the touchscreen **30** of the associate mobile computing device **24**. In another example, if the customer selected that he/she will be walking, then the icon **51** may be represented as a person walking when displayed on the touchscreen **30** of the associate mobile computing device **24**. Furthermore, the amount of travel time remaining is displayed under the icon **51**. As shown in FIG. **10**, for example, the amount of travel time remaining of 10 minutes (i.e., the customer should be arriving at the store in 10 minutes) is displayed under the icon (car) **51**.

As previously mentioned, the customer mobile computing device **20** continuously transmits signals to the server computer **14** including the recorded location of the customer mobile computing device **20** as the customer is traveling so that the server computer **14** can track the location of the customer. In turn, the server computer **14** utilizes these signals to dynamically update the amount of travel time remaining until the customer arrives at the store, and transmits the updated estimated amount of travel time remaining to the associate mobile computing device **24**. The server computer **14** also transmits a signal to the associate mobile computing device **24** to display a graphical representation of the updated estimated amount of travel time remaining on the touchscreen **30** of the associate mobile computing device **24**. In an example, and as described above, the first estimated travel time remaining is displayed as both an alphanumeric and graphical representation on the touchscreen **30** of the associate mobile computing device **24**. As shown in FIG. **10**, the icon **51** and bar **53** (graphical representation) and the travel time remaining (alphanumeric representation) are positioned at the left-hand-side of the touchscreen **30**, indicating a starting point of the customer's travels (i.e., the initial location of the customer mobile computing device **20**). In the example shown in FIG. **10**, the initial location of the customer mobile computing device **20** is about 10 minutes away from the store. It is to be understood that the initial location of the mobile computing device **20** can be any amount of time away, and the starting point of the customer's travels will be reflected on the associate mobile computing device **24**. For instance, if the starting point of the customer's travels is about 25 minutes away, then the travel time remaining, as an alphanumeric representation) will be displayed on the touchscreen **30** of the associate mobile computing device **20** as the starting point on the left-hand-side of the screen. It is also be to understood that the starting point can be anywhere on the touchscreen, such as on the right-hand-side of the screen such that the icon **51** moves from right to left, on the top of the screen such that the icon **51** moves from top to bottom, at the corner of the screen such that the icon **51** moves from that corner and diagonally to the opposite corner, etc.

As the customer travels toward the store, the amount of travel time remaining until the customer arrives at the store **12** is reduced. The server computer **14** can determine, utilizing the tracking information of the customer mobile computing device **20**, that the customer is moving toward the store **12**, and can also utilize the tracking information to estimate an updated travel time remaining until the customer arrives at the store **12**. This updated remaining travel time is transmitted to the associate mobile computing device **24**, by the server computer **14**, with an instruction to display a graphical representation of the updated remaining travel time on the touchscreen **30** of the associate mobile computing device **24**. An example of this is shown in FIG. **11**, where the icon **51** (car) and the bar **53** has moved toward the right-hand-side of the screen from the starting point (at the left-hand-side of the screen), and the alphanumeric representation of the time remaining (3 minutes) is displayed below the icon **51**.

In an embodiment, the server computer **14** continuously obtains the tracking information from the customer mobile computing device **20**, continuously updates the estimated remaining travel time, and continuously transmits signals to the associate mobile computing device **24** with instructions to display the updated remaining travel time. For example, and as shown in FIG. **11** and as previously described, the associate mobile computing device **14** displays the updated remaining travel time of 3 minutes until the customer arrives at the store, and the icon (car) **51** has moved and bar **53** has extended from the left-hand-side of the touchscreen **30** to a position closer to the right-hand-side of the touchscreen **30**. By continuously receiving updated remaining travel time from the server computer **14**, the associate mobile computing device **24** continuously displays the updated travel time on the touchscreen **30**. For example, in FIG. **12**, the associate mobile computing device **14** displays a further updated remaining travel time of 2 minutes until the customer arrives at the store, and the icon (car) **51** has moved and bar **53** has extended to a position that is even closer to the right-hand-side of the touchscreen **30** than that shown in FIG. **11**. The server computer **14** transmits the updated remaining travel time to the associate mobile computing device **24** until the customer mobile computing device **20** has arrived at the store, which is shown by the icon (car) **51** being moved to the right-hand-side of the touchscreen **30** and the bar **53** extending across the touchscreen **30** from the left-hand-side to the right-hand-side, as shown in FIG. **13**.

Typically, the updated remaining travel time is updated each time the server computer **14** transmits a new signal to the associate mobile computing device **20** with updated information. In another example, the updated remaining travel time may be updated dynamically, where information taken from the customer mobile computing device **20** is transmitted immediately to the associate mobile computing device **24** so that the remaining travel time is reflected on the touchscreen **30** of the associate device **24** in real time.

In an embodiment, the tracking information received by the server computer **14** may reveal that the customer mobile computing device **20** is moving in a direction away from the store **12**. This may occur, for example, when the customer has decided to go back home, when the customer takes a detour to another point of interest before arriving at the store **12**, or the like. In some instances, the customer may be stuck in traffic even though the customer is still heading in the direction toward the store **12**, and it appears that the customer mobile computing device **20** is not moving. In any of these scenarios, the updated travel time remaining may be longer than what the estimated travel time remaining was to begin with. Accordingly, and in this embodiment, the server computer **14** utilizes the tracking information to determine that the customer mobile computing device **20** is moving away from the store or is not moving at all, and transmits a signal to the device **24** indicating that the customer associate with the customer mobile computing device **20** is no longer moving toward the store. In an example, the server computer **14** also transmits a signal including an instruction to change the graphical representation, such as the icon (car) **51** displayed on the touchscreen **30**, as being positioned further away from the right-hand-side of the touchscreen **30** than the icon **51** was previously positioned. Likewise, the bar **53** may shrink in length (e.g., appear shorter than the bar **53** was before). In instances where the server computer **14** determines that the customer has gone back home, is not moving, and/or heading toward a different point of interest, the server computer **14** may transmit a signal to the associate mobile computing device **24** indicating that the customer is no longer moving toward the store. The server computer **14** may also transmit a signal including instructions to the associate to place the items of the customer order, e.g., back on the shelves of the store, as the customer is likely not going to timely show up to pick-up his/her order.

When the customer arrives at the store, the server computer **14** transmits another signal to the associate mobile computing device **14** indicating that the customer mobile computing device **20** has arrived and transmits an instruction to display the same on the associate mobile computing device **24**. For example, and as shown in FIG. **13**, the term "Arrived" is displayed on the touchscreen **30** of the associate device **24** below the icon **51**. In addition, the server computer **14** may also transmit a signal to the associate mobile computing device **24** with a notification to the associate to proceed with serving the customer who has arrived. As shown in FIG. **13**, the term "Leave Now" may also be displayed on the touchscreen **30** above the icon **51**.

Once the customer has arrived, the server computer **14** may also transmit a signal to the associate mobile computing device **24** to display, on the touchscreen **30**, a prompt inquiring whether or not the associate would like to mark the customer order as being served. Where the associate has retrieved all of the items of the customer order and the order is ready for pick-up upon arrival of the customer at the store, the associate may select "Yes" indicating that the customer has been served. In this instance, the associate mobile computing device **24** transmits a signal to the server computer **14** indicating that the customer has been served. Where the associate has not yet retrieved all of the items of the customer order, the associate may select "No" indicating that the customer has not yet been served. While the prompt may be displayed on the associate mobile computing device

24 once the customer has arrived at the store, the prompt may also be displayed at any time prior to the customer's arrival.

In an embodiment, and as shown in FIGS. **10-13**, the server computer **14** may transmit a signal to the associate mobile computing device **24** to update a running total of the number of customers that have checked-in, the number of customers with pending orders who have not checked-in, and the number of customers that have been served. The unique customer identification for each of the customers with pending orders falling within a particular time slot may be displayed on the associate mobile computing device **24**. In an example, the customers who have checked-in are displayed at the top, and the customer who have not checked-in are displayed at the bottom. In another embodiment, and as shown in FIGS. **10-13**, the server computer **14** may transmit a signal to the associate mobile computing device **24** including an instruction to display the number of customers waiting for an associate to accept an offer to serve the customer. In this way, the associate is aware that customers have checked-in and are on their way to the store, but none of the associates are yet responsible for filling the customer orders. Utilizing the alphanumeric and graphical representation of the travel time remaining until the customer arrives at the store, an associate may accept one or more of the pending customers so that those customer orders are filled by the time the customers arrive at the store.

In another embodiment, and as shown in FIGS. **10-13**, the touchscreen **30** of the associate mobile computing device **24** may include a "call" icon associated with each of the customers (identified by the unique customer identification) who has checked-in and is displayed on the touchscreen **30**. The "call" icon may be used, by the associate utilizing his/her associate mobile computing device **24**, to contact the customer in instances where the associate has questions regarding the customer order, questions regarding where the customer is located at the store for purposes of delivering the customer order to the customer or customer's vehicle, and/or the like. In an example, the "call" icon is linked to the customer's cellular phone number, and when selected by the associate, automatically places a phone call to the customer's mobile computing device **20**. Once the customer has arrived, the associate can deliver the order directly to the customer by handing the items of the customer order to the customer who is inside the store or delivering the items to the customer's vehicle in, e.g., the parking lot of the store.

Referring now to FIG. **14**, another embodiment of a customer check-in method is described below. The method utilizes the processor of the server computer **14** to perform the steps of: install a customer application on each of a plurality of customer mobile computing devices each having a processor, a memory device, and a touchscreen, with the memory device of the customer mobile computing device storing the customer application that, when executed, causes the processor of the customer mobile computing device to display a graphical user interface that is usable by the customer (as shown in step **300**); install an associate application on an associate mobile computing device having a processor, a memory device, and a touchscreen, with the memory device of the associate mobile computing device storing the associate application that, when executed, causes the processor of the associate mobile computing device to display a graphical user interface that is usable by an associate of the store (as shown in step **302**); receive, from each of the customer mobile computing devices, a signal including a unique customer identification associated with the customer mobile computing device and an indication that the customer has checked-in to pick-up a customer order from the store (as shown in step **304**); obtain tracking information of a current location of each of the customer mobile computing devices (as shown in step **306**); utilize the tracking information to estimate an amount of travel time remaining until each of the customer mobile computing devices arrive at the store (as shown in step **308**); transmit a signal to the associate mobile computing device including the unique customer identification and a first estimated travel time remaining until the customer mobile computing device associated with the unique customer identification arrives at the store, the signal further including an instruction to display a listing, on the touchscreen of the associate mobile computing device, including the unique customer identification for each of the customer mobile computing devices and a graphical representation of the estimated travel time remaining for each of the customer mobile computing devices, with the listing including the unique customer identification arranged from the shortest to the longest travel time remaining until the customer mobile computing devices arrive at the store (as shown in step **310**); and transmit at least one signal to the associate mobile computing device including an updated estimated travel time remaining until each of the customer mobile computing devices arrives at the store, the signal further including an instruction to rearrange the unique customer identifications in the listing if the current order of the unique customer identifications based on the updated estimated remaining travel time is no longer ordered from the shortest to the longest remaining travel time (as shown in step **312**). Details of this embodiment of the method are described below with reference to FIGS. **15-18**.

The present embodiment of the method illustrated in FIG. **14** is similar to the embodiment of the method illustrated in FIG. **2**, except that the present embodiment takes into account a plurality of customers who have checked-in for picking up respective customer orders from the store **12**. Steps **300-308** are similar to steps **200-208** as described above. However, in the present method, the server computer **14** transmits, to the associate mobile computing device **24**, the unique customer identification and a first estimated travel time remaining for each of the plurality of customers until each of the customer mobile computing devices **20** arrive at the store **12**. The signal also includes an instruction to display a listing, on the touchscreen **30** of the associate mobile computing device **24**, including the unique customer identification and a graphical representation of the estimated travel time remaining for each of the customer mobile computing devices **20**.

In an embodiment, the listing displayed on the touchscreen **30** of the associate mobile computing device **24** includes the unique customer identification arranged from the shortest (arranged at the top) to the longest (arranged at the bottom) travel time remaining until the customer mobile computing devices **20** arrive at the store. In the example shown in FIG. **15**, Customer **1** and Customer **2** have checked-in, and the travel time remaining until Customer **1** arrives at the store is about 3 minutes and the travel time remaining until Customer **2** arrives at the store is about 10 minutes. As shown in FIG. **14**, Customer **1** is arranged at the top of the touchscreen **30**, and Customer **2** is arranged under Customer because Customer **2** has a longer travel time remaining than Customer **1**.

As previously described, the customer mobile computing device **20** continuously transmits signals to the server computer **14** including the recorded location of the customer mobile computing device **20** as the customer is traveling so that the server computer **14** can track the location of the customer. In turn, the server computer **14** utilizes these signals to update the amount of travel time remaining until the customer arrives at the store **12**, and transmits the updated estimated amount of travel time remaining to the associate mobile computing device **24**. In this present embodiment, an updated estimated amount of travel time remaining for each customer that has checked-in is transmitted to the associate mobile computing device **24**. The server computer **14** also transmits a signal to the associate mobile computing device **24** to display a graphical representation of the updated estimated amount of travel time remaining for each customer on the touchscreen **30** of the associate mobile computing device **24**. In an example, the first estimated travel time remaining is displayed as both an alphanumeric and graphical representation on the touchscreen **30** of the associate mobile computing device **24**. As shown in FIG. **15**, the icon **51** and bar **53** (graphical representation) and the travel time remaining (alphanumeric representation) for Customer **2** are positioned at the left-hand-side of the touchscreen **30**, indicating a starting point of Customer **2**'s travels (i.e., the initial location of the customer mobile computing device **20** of Customer **2**). In the example shown in FIG. **15**, the initial location of the customer mobile computing device **20** of Customer **2** is about 10 minutes away from the store.

As Customer **2** travels toward the store, the amount of travel time remaining until Customer **2** arrives at the store is reduced. The server computer **14** can determine, utilizing the tracking information of the customer mobile computing device **14**, that Customer **2** is moving toward the store, and can also utilize the tracking information to estimate an updated travel time remaining until Customer **2** arrives at the store. This updated remaining travel time is transmitted to the associate mobile computing device **24** with an instruction to display a graphical representation of the updated remaining travel time on the touchscreen **30** of the associate mobile computing device **24**. An example of this is shown in FIG. **16**.

In an embodiment, the server computer **14** continuously obtains the tracking information from the customer mobile computing device **20**, continuously updates the estimated remaining travel time, and continuously transmits signals to the associate mobile computing device **24** with instructions to display the updated remaining travel time. For example, and as shown in FIG. **16**, the associate mobile computing device **14** displays the updated remaining travel time of 7 minutes until Customer **2** arrives at the store, and the icon (car) **51** has moved and bar **53** has extended from the left-hand-side of the touchscreen **30** to a position closer to the right-hand-side of the touchscreen **30**. As the updated remaining travel time is received from the server computer **14**, the associate mobile computing device **24** continues to displays the updated travel time on the touchscreen **30**. For example, in FIG. **17**, the associate mobile computing device **14** displays the further updated remaining travel time of 2 minutes until Customer **2** arrives at the store, and the icon (car) **51** has moved and bar **53** has extended to a position that is even closer to the right-hand-side of the touchscreen **30** than that shown in FIG. **16**. The server computer **14** transmits the updated remaining travel time to the associate mobile computing device **24** until the customer mobile computing device **20** has arrived at the store, which is shown by the icon (car) **51** being moved to the right-hand-side of the touchscreen **30** and the bar **53** extending across the touchscreen **30** from the left-hand-side to the right-hand-side, as shown in FIG. **18**.

It is possible that the travel time remaining for one of the customers bypasses the travel time remaining for another one of the customers. In such an instance, the server computer **14** may transmit a signal to the associate mobile computing device **24** including an instruction to rearrange the unique customer identifications in the listing if the current order of the unique customer identifications based on the updated estimated remaining travel time is no longer ordered from the shortest to the longest remaining travel time. For example, as shown in FIG. **16**, the travel time remaining until Customer **1** arrives at the store is about 3 minutes and the travel time remaining until Customer **2** arrives at the store is about 7 minutes. As shown in FIG. **17**, the travel time remaining until Customer **1** arrives at the store is still about 3 minutes (likely indicating that Customer **1** is stopped or parked) and the travel time remaining until Customer **2** arrives at the store is about 2 minutes (indicating that Customer **2** is moving toward the store). Since Customer **2** is now closer to the store than Customer **1** (in terms of the travel time remaining), the server computer **14** transmits a signal to the associate mobile computing device **24** to automatically rearrange the order of the customer unique identifiers displayed on the touchscreen **30**. Accordingly, and as shown in FIG. **17**, Customers **1** and **2** are rearranged such that Customer **2** is listed at the top of the listing, and Customer **1** is below Customer **2**.

It is to be understood that the associate mobile computing device **24** may display any number of customers on the touchscreen **30** of the device **24**. The customers displayed typically include customers who have already checked-in. In an example, the server computer **14** may obtain a list of customers all having the same selected time slot for picking up a customer order. In this example, the server computer **14** may transmit a signal to the associate mobile computing device **24** including a listing of all customers with the same time slot regardless of whether the customer has checked-in or not. In an example, the customers that have checked-in may be displayed on the touchscreen **30** in active colors, while the customer that have not checked-in may be displayed on the touchscreen in dull or dim colors.

In another example, the server computer **14** may determine, from the customer profile stored in the database **16**, that the customer is a new customer. In this example, the server computer **14** may transmit a signal to the associate mobile computing device **24** including an instruction to display, on the touchscreen **30**, an icon proximate the unique customer identification with the term "New" or other similar designation.

In an embodiment, the processor of the server computer **14** is further programmed to receive a signal from the associate mobile computing device **24** including a summary containing a number of customers that have checked-in, a number of customers that have not checked-in, a number of customers that have been served, a number of customers that have not been served, and combinations thereof. An example of the summary is shown in FIG. **19**, where the number of customers that have and have not been checked-in are identified graphically and by alphanumeric characters, and the number of customers that have and have not been served are also identified graphically and by alphanumeric characters. In this example, the graphical form of the summary is defined circular graphs including a first circle graph having two sections, with one of the sections representing the number of customers that have checked-in and the other section representing the number of customers that have not checked-in. The graphical form of the summary is also defined by a second circle graph having two sections, with one of the sections representing the number of customers that have been served and the other section representing the number of customers that have not been served. It is to be understood that the summary may be represented by any suitable graphical form, such as a bar graph, a line graph, a pie graph, etc.

Referring now to FIG. **20**, another embodiment of customer check-in method is described below. In this embodiment, a customer who has not checked-in himself/herself may be automatically checked-in by the server computer **14** upon detecting that the customer is traveling toward the store **12**. In particular, this embodiment of the method includes the steps of: generating a database including data records with each record containing a customer profile (as shown in step **400**); installing a customer application on a customer mobile computing device having a processor, a memory device, a touchscreen, and a wireless antenna for detecting a wireless hotspot about a store, with the memory device storing a customer application (as shown in step **402**); installing an associate application on an associate mobile computing device having a processor, a memory device, and a touchscreen, with the memory device storing an associate application (as shown in step **404**); receiving a signal from the customer mobile computing device that the customer mobile computing device has recognized the wireless hotspot, and including a unique customer identification associated with the customer mobile computing device (as shown in step **406**); retrieving, from the database, one of the data records including the customer profile associated with the unique customer identification; determining if the retrieved data record further includes a customer order (as shown in step **408**); and if the retrieved data record includes the customer order, then automatically checking-in the customer and transmitting a signal to the associate mobile computing device including an indication that the customer has been checked-in for pick-up of the customer order (as shown in step **410**). Details of this embodiment of the method are described below with reference to FIG. **21**.

As mentioned above, the customer mobile computing device **20** includes a wireless antenna for detecting a wireless hotspot about the store **12**. In an example, and with reference to FIG. **21**, the store **12** may include a communications device **66**, such as a wireless access point (WAP, which is also known as a hotspot for Wi-Fi connections) that allows wireless devices (e.g., the customer mobile computing device **20**) to connect to the server computer **14**, or to a network including the server computer **14**, utilizing Bluetooth®, Wi-Fi, or other related standards. The customer mobile computing device **20** may connect with the communications device **66** (e.g., the WAP) when the customer mobile computing device **20** is within a wireless connection range of the communications device **20**.

In an example, the communications device **66** is configured with wireless fidelity (Wi-Fi) technology, and the customer mobile computing device **66** can recognize a wireless signal propagating from the communications device **66** utilizing the Wi-Fi technology. The WAP, or hotspot, may have a preset wireless access range for Wi-Fi connections. The preset wireless access range for Wi-Fi connections may be any preset distance from the communications device **66**. In an example, the preset distance for Wi-Fi connections with the communications device **66** extends only within the store **12**. In another example, the preset distance for Wi-Fi connections with the communications device **66** extends a distance outside of the store, such as ½ mile from the store, 1 mile from the store, 5 miles from the store, etc. The wireless range may be preset by presetting the propagation of the wireless signal, as well as the transmission power of the signal.

As an alternative example, the communications device **66** may also be capable of establishing Bluetooth® connections with the customer mobile computing device **20**. In this example, the customer mobile computing device **20** includes a Bluetooth® chip for recognizing radio waves propagating from the communications device **66**.

In the present embodiment, the method includes generating the database **16** including data records with each record containing a customer profile, as previously described. The method further includes installing the customer application **18** on the customer mobile computing device **20** and installing the associate application **22** on the associate mobile computing device **24**, as also previously described. When the customer mobile computing device **20** is within a wireless connection range of the communications device **66**, and the device **20** is operating, the device **20** automatically recognizes the wireless hotspot. Upon recognizing the wireless hotspot, the customer mobile computing device **20** automatically transmits a signal to the server computer **14** indicating that the customer mobile computing device **20** has recognized the wireless hotspot. The signal may also indicate that the device **20** is also attempting to establish a Wi-Fi connection with the communications device **66** while within the wireless hotspot.

Typically, recognition of the wireless hotspot is enough for the customer mobile computing device **20** to transmit a signal to the server computer **14**, or for the server computer **14** to identify the customer mobile computing device **20**. In some instances, however, the customer mobile computing device **20** may also establish a wireless connection with the communications device **66**, and in turn, with the server computer **14**. In an example, the wireless connection is a Wi-Fi connection.

During the automatic transmission of the signal to the server computer **14** that the device **20** has recognized the wireless hotspot (or has established a wireless connection), the customer mobile computing device **20** also transmits a unique customer identification associated with the customer mobile computing device **20**. The server computer **14** utilizes the unique customer identification to identify the customer mobile computing device **20** from the data records stored in the database **16**. In an embodiment, the server computer **14** retrieves, from the database **16**, one of the data records including the customer profile associated with the unique customer identification.

Utilizing the data record from the database **16**, the server computer **14** determines if the retrieved data record includes a customer order. If the data record includes a customer order, then the server computer **14** also determines if there are multiple stores and, if so, which one of the stores the customer order is with. The store that the customer order is with may be determined by further reviewing the data record, which typically includes the location of the store (such as by the postal address) that the customer order is with. The server computer **14** compares the location of the store stored in the data record with the location of the recognized wireless hotspot, and if the locations are close to one another, then the server computer **14** may conclude that the customer is heading toward the store **12** to pick up his/her customer order.

In an example, if the retrieved data record includes the customer order, then the server computer **14** automatically checks-in the customer and transmits a signal to the associate mobile computing device **24** including an indication that the customer has been checked-in for pick-up of the customer order. The signal transmitted to the associate mobile computing device **24** may also include the customer order (which was retrieved from the data record stored in the database **16**) and an instruction to fill the order.

In an embodiment, the data record further includes a time slot for when the customer is to pick-up the customer order. As previously mentioned, the time slot may be selected by the customer and stored in the database **16** with the customer order. Upon retrieving the time slot from the data record, the server computer **14** identifies a time that the signal was received from the customer mobile computing device **20** that the customer device **20** recognized the wireless hotspot, compares the time with the time slot for when the customer is to pick-up the customer order, and if the time falls within the time slot, then automatically check-in the customer. Also if the time falls within the time slot, the server computer **14** also transmits a signal to the associate mobile computing device **24** including an instruction to fill the customer order.

The associate at the store **12** may proceed to fill the order upon receiving the instruction from the server computer **14** so that the customer order is filled by the time the customer arrives at the store. Since the wireless hotspot enables short range Wi-Fi connections, the associate may assume that the customer is close to the store, and will likely be picking up the customer order very soon.

In an embodiment, the server computer **14** transmits a signal to the customer mobile computing device **20** including a notification that the customer has a pending customer order at the store, and that the customer has been automatically checked-in for pick up. If the customer is intending to go to the store to pick-up the order, then the customer needs to do nothing more than to arrive at the store and be served. However, if the customer is not intending to go to the store, then the customer can send a response, utilizing the customer application **18** on the customer device **20**, indicating that the customer is not picking up the customer order at this time. Upon receiving this response, the server computer **14** may transmit a signal to the associate mobile computing device **24** including an instruction to put the items of the customer order back on the shelves, as the customer is not on his/her way to pick-up the customer order.

The above description of illustrated embodiments and examples of the present disclosure, including what is described in the Abstract, are not intended to be exhaustive or to be a limitation to the precise forms disclosed. While specific embodiments of, and examples for, the present disclosure are described herein for illustrative purposes, various equivalent modifications are possible without departing from the broader spirit and scope of the present disclosure.

What is claimed is:

1. A system for automatically checking-in a customer of a store, with the system comprising:

a database including data records with each data record containing a customer profile; and

a server computer of the store coupled to the database and including a processor coupled to a memory device, with the processor being programmed to:

install a customer application on a customer mobile computing device having a processor, a memory device, a touchscreen, and a wireless antenna for detecting a wireless hotspot about the store, with the memory device of the customer mobile computing device storing the customer application that, when executed, causes the processor of the customer mobile computing device to display a graphical user interface that is usable by the customer;

install an associate application on an associate mobile computing device having a processor, a memory device, and a touchscreen, with the memory device of the associate mobile computing device storing the associate application that, when executed, causes the processor of the associate mobile computing device to display a graphical user interface that is usable by an associate of the store;

receive a signal from the customer mobile computing device including an indication that the customer mobile computing device has recognized the wireless hotspot, and including a unique customer identification associated with the customer mobile computing device;

retrieve, from the database, one of the data records including the customer profile associated with the unique customer identification;

determine when a retrieved data record further includes a customer order at the store; and

when the retrieved data record includes the customer order, then automatically check-in the customer and transmit a signal to the associate mobile computing device including an indication that the customer has been checked-in for pick-up of the customer order, wherein the one of the data records further includes a time slot for when the customer is to pick-up the customer order and the processor is further programmed to:

identify a time that the signal was received from the customer mobile computing device that the customer mobile computing device recognized the wireless hotspot;

compare the time with the time slot for when the customer is to pick-up the customer order; and

when the time falls within the time slot, then check-in the customer.

2. The system as set forth in claim **1** wherein the signal transmitted to the associate mobile computing device further includes the customer order and an instruction to fill the customer order.

3. The system as set forth in claim **1** wherein the store is one of a plurality of stores and the processor is further programmed to identify one of the plurality of stores including the wireless hotspot recognized by the customer mobile computing device.

4. The system as set forth in claim **1** wherein when the time falls within the time slot, the processor is further programmed to transmit the signal to the associate mobile computing device including an instruction to fill the customer order.

5. The system as set forth in claim **1** wherein the processor being programmed to receive the signal from the customer mobile computing device including an indication that the customer mobile computing device has recognized the wireless hotspot further includes the processor being programmed to receive the signal from the customer mobile computing device including an indication that the customer mobile computing device has established a wireless connection with the server computer.

6. The system as set forth in claim **5** wherein the wireless connection is a wireless fidelity (Wi-Fi) connection.

7. A computer-implemented method for automatically checking-in a customer, with the method comprising a processor performing the steps of:

generating a database including data records with each data record containing a customer profile;

installing a customer application on a customer mobile computing device having a processor, a memory device, a touchscreen, and a wireless antenna for detecting a wireless hotspot about a store, with the memory device storing the customer application;

installing an associate application on an associate mobile computing device having a processor, a memory device, and a touchscreen, with the memory device storing the associate application;

receiving a signal from the customer mobile computing device that the customer mobile computing device has recognized the wireless hotspot, and including a unique customer identification associated with the customer mobile computing device;

retrieving, from the database, one of the data records including the customer profile associated with the unique customer identification;

determining when a retrieved data record further includes a customer order; and

when the retrieved data record includes the customer order, then automatically checking-in the customer and transmitting a signal to the associate mobile computing device including an indication that the customer has been checked-in for pick-up of the customer order, wherein the one of the data records further includes a time slot for when the customer is to pick-up the customer order and further comprising the steps of:

identifying a time that the signal was received from the customer mobile computing device that the customer mobile computing device recognized the wireless hotspot;

comparing the time with the time slot for when the customer is to pick-up the customer order; and

determining that the time falls within the time slot and in response checking-in the customer.

8. The method as set forth in claim **7** wherein the step of transmitting the signal to the associate mobile computing device further includes the customer order and an instruction to fill the customer order.

9. The method as set forth in claim **7** wherein the store is one of a plurality of stores and further comprising the step of identifying the one of the plurality of stores including the wireless hotspot recognized by the customer mobile computing device.

10. The method as set forth in claim **7** wherein when the time falls within the time slot, then the method further comprises the step of transmitting the signal to the associate mobile computing device including an instruction to fill the customer order.

11. The method as set forth in claim **7** wherein the step of receiving the signal from the customer mobile computing device including an indication that the customer mobile computing device has recognized the wireless hotspot further includes the step of receiving the signal from the customer mobile computing device including an indication that the customer mobile computing device has established a wireless connection with a server computer.

12. The method as set forth in claim **11** wherein the wireless connection is a wireless fidelity (WiFi) connection.

13. One or more non-transitory computer-readable storage media, having computer executable instructions embodied thereon, wherein when executed by at least one processor, the computer-executable instructions cause the processor to:

operate a customer mobile computing device to display a graphical user interface that is usable by a customer on a touchscreen of the customer mobile computing device, the customer mobile computing device further including a wireless antenna for detecting a wireless hotspot about a store;

operate an associate mobile computing device to display a graphical user interface that is usable by an associate of the store on a touchscreen of the associate mobile computing device;

operate a server computer to receive a signal from the customer mobile computing device that the customer mobile computing device has recognized the wireless hotspot, and including a unique customer identification associated with the customer mobile computing device;

operate a server computer to retrieve, from a database, a data record including a customer profile associated with the unique customer identification;

operate the server computer to determine when a retrieved data record further includes a customer order; and

when the retrieved data record includes the customer order, then operate the server computer to check-in the customer and transmit a signal to the associate mobile computing device including an indication that the customer has been checked-in for pick-up of the customer order, wherein one of the data records further includes a time slot for when the customer is to pick-up the customer order and the computer-executable instructions further causes the processor to:

identify a time that the signal was received from the customer mobile computing device that the customer mobile computing device recognized the wireless hotspot;

compare the time with the time slot for when the customer is to pick-up the customer order; and

when the time falls within the time slot, then check-in the customer.

14. The one or more non-transitory computer-readable storage media as set forth in claim **13** with the computer-executable instructions causing the processor to transmit the signal to the associate mobile computing device further includes the customer order and an instruction to fill the customer order.

15. The one or more non-transitory computer-readable storage media as set forth in claim **13** wherein the store is one of a plurality of stores and the computer-executable instructions causes the processor to identify the one of the plurality of stores including the wireless hotspot recognized by the customer mobile computing device.

16. The one or more non-transitory computer-readable storage media as set forth in claim **13** wherein the computer-executable instructions further cause the processor to transmit the signal to the associate mobile computing device including an instruction to fill the customer order.

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